ORDER NO. ARD-711034

MODEL

PANASONIC® Service Manual

SOLID STATE 4-TRACK STEREO TAPE RECORDER

MODEL RS-790S

SPECIFICATIONS

Power Source:	AC: 117 volts 60 cps
Power Consumption:	Approx. 50 W
Music Power Output:	8 W × 2
Transistor:	2SB 346 (4) 2SB 175A (4) 2SB 473 (4) 2SB 324 (2)
Diode & Rectifier:	OA 70 (2) FR-1M (1) 25F (1)
Recording System:	AC bias 50 Kc
Erasure System:	AC erase
Reel Size:	7″ max.
Track System:	4 track stereo system
Tape Speed:	3 speeds, 7-1/2, 3-3/4 and 1-7/8 ips
Frequency Response:	40~18,000 cps at 7-1/2 ips 40~10,000 cps at 3-3/4 ips 40~ 5,000 cps at 1-7/8 ips
Input:	"MIC" 20 KΩ −67 dB (2) "AUX" 100 KΩ −20 dB (2)
Output:	"LINE" 10 KΩ 0 dB (2) "EXT. SP" 8Ω (2) "HEADPHONE" 8Ω (1)
Program Time:	12 hours for 7″ 150% tape at 1-7/8 ips
Recording Level Indicator:	VU meter
Built-in Speaker:	7″ × 5″ dynamic speaker (2)
Dimensions:	16-11/16″ (W) × 17-3/16″ (H) × 9″ (D)
Weight:	Approx. 38-1/4 lb

MATSUSHITA ELECTRIC CORP. OF AMERICA
Pan-Am Bldg., 200 Park Ave., New York, N.Y. 10017
HAWAII/MATSUSHITA ELECTRIC OF HAWAII, INC., 205 Kalihi St. Honolulu, Hawaii 96819
CANADA/MATSUSHITA ELECTRIC OF CANADA LTD., 1054 Kipling Ave. North, Rexdale, Ont.

LOCATION OF PARTS

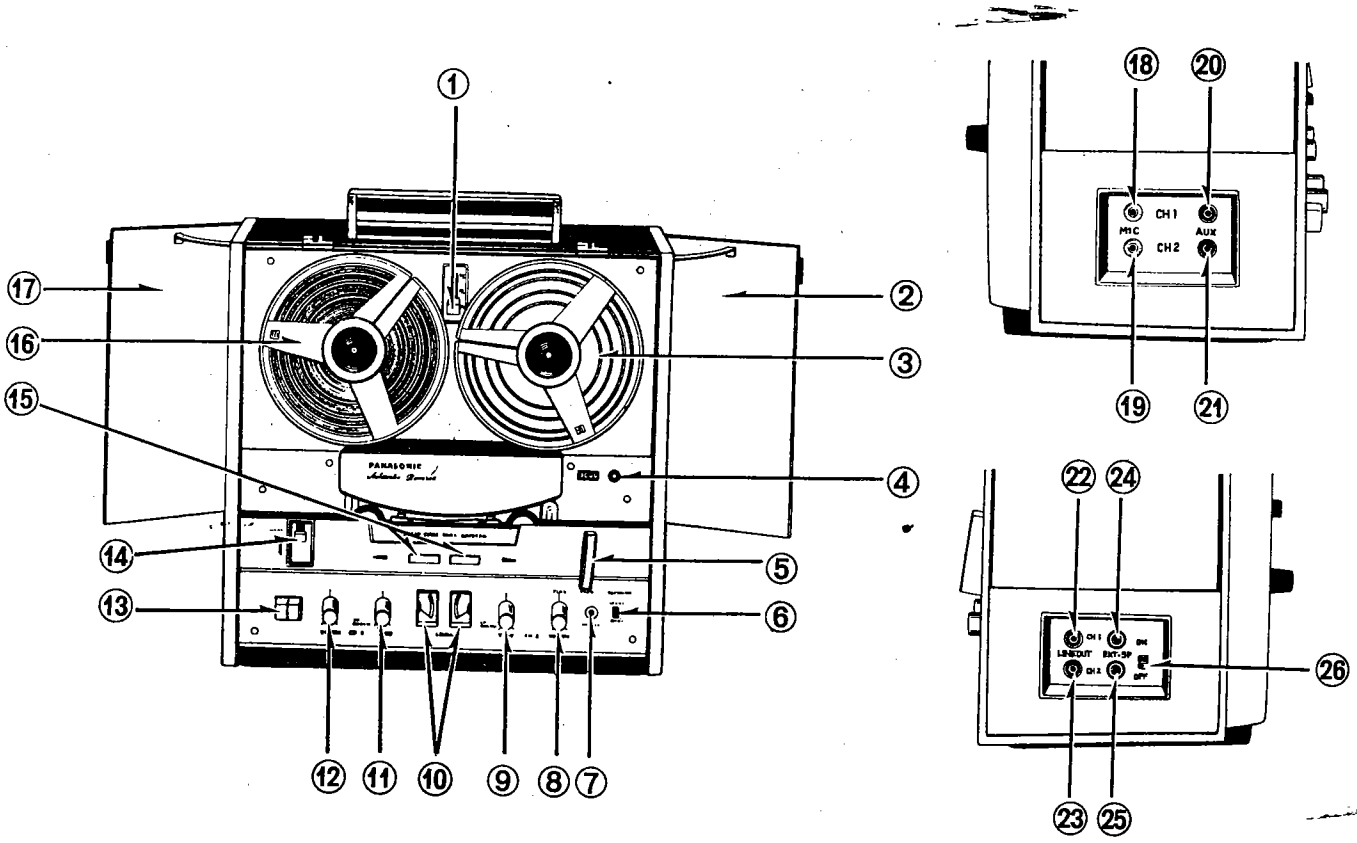


Fig. 1

① Speed Selector Switch
② Reflector for Channel 2 Speaker
③ Right Reel
④ Tape Counter
⑤ Function Lever
⑥ Stereo/Monaural Selector Switch
⑦ Stereo Headphone Jack
⑧ Channel 2 Volume Control and Power ON/OFF Switch
⑨ Channel 2 Tone Control and Monitor Switch
⑩ VU Meters
⑪ Channel 1 Tone Control and Monitor Switch
⑫ Channel 1 Volume Control
⑬ Record Buttons
⑭ Pause Lever
⑮ Direction Push Buttons (Forward and Reverse)
⑯ Left Reel
⑰ Reflector for Channel 1 Speaker
⑱ Channel 1 Microphone Jack
⑲ Channel 2 Microphone Jack
⑳ Chennel 1 Auxiliary Jack
㉑ Channel 2 Auxiliary Jack
㉒ Channel 1 Line Output Jack
㉓ Channel 2 Line Output Jack
㉔ Channel 1 External Speaker Jack
㉕ Channel 2 External Speaker Jack
㉖ Speaker ON/OFF Switch
㉗ Sensing Pole for Automatic Reverse
㉘ Left Pressure Roller
㉙ Left Capstan
㉚ Record/Playback Head for Reverse Operation
㉛ Erase Head for Reverse Operation
㉜ Tape Shifter
㉝ Erase Head for Forward Operation
㉞ Record/Playback Head for Forward Operation
㉟ Right Capstan
㊱ Right Pressure Roller
㊲ Automatic Shut-off Switch
㊳ Sensing Pole for Automatic Re-reverse

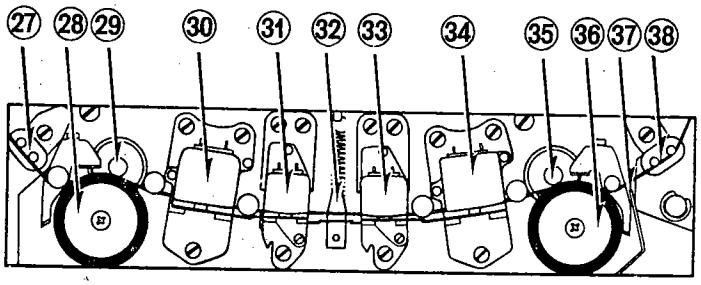


Fig. 2

BLOCK DIAGRAM OF ELECTRICAL CIRCUITS

RECORDING CIRCUIT

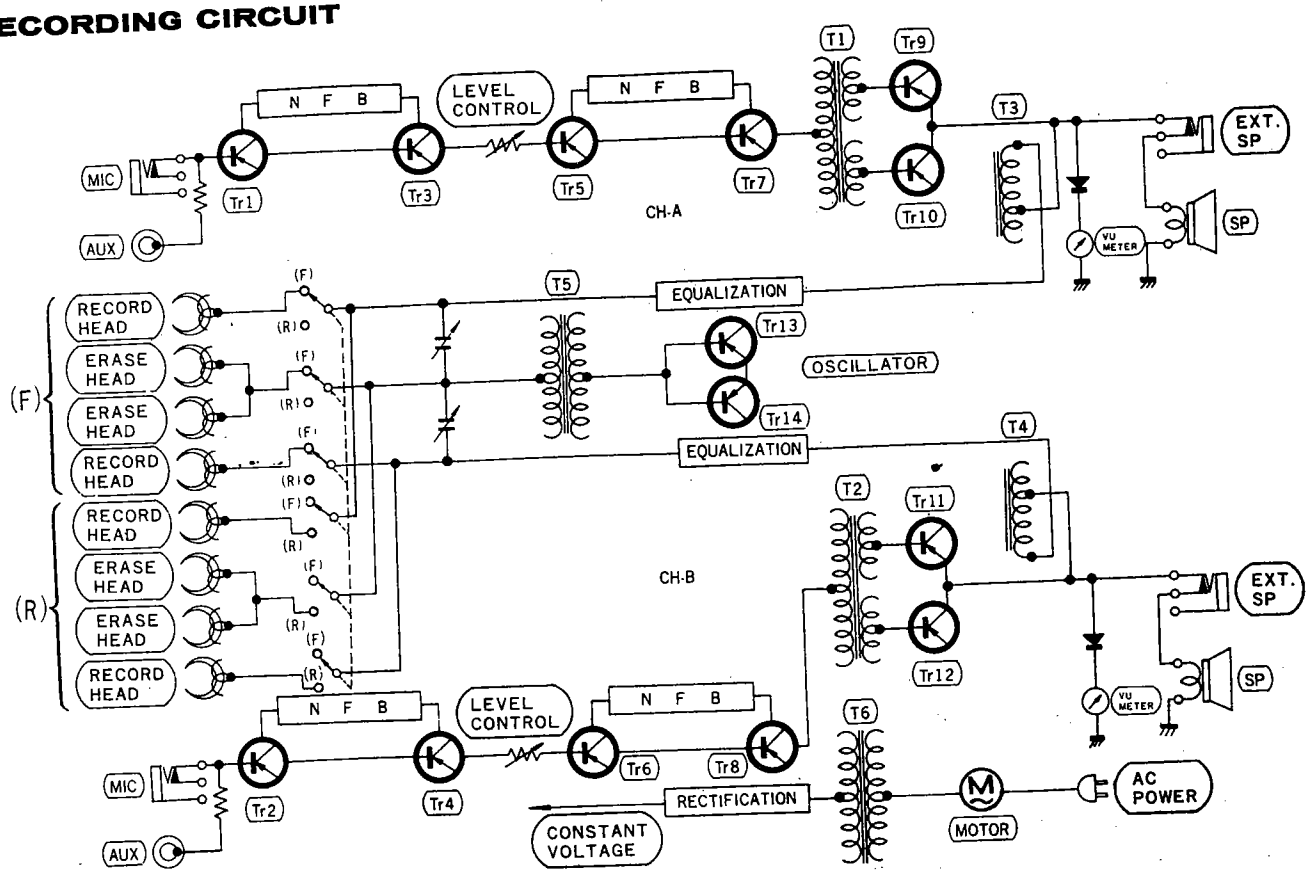


Fig. 3

PLAYBACK CIRCUIT

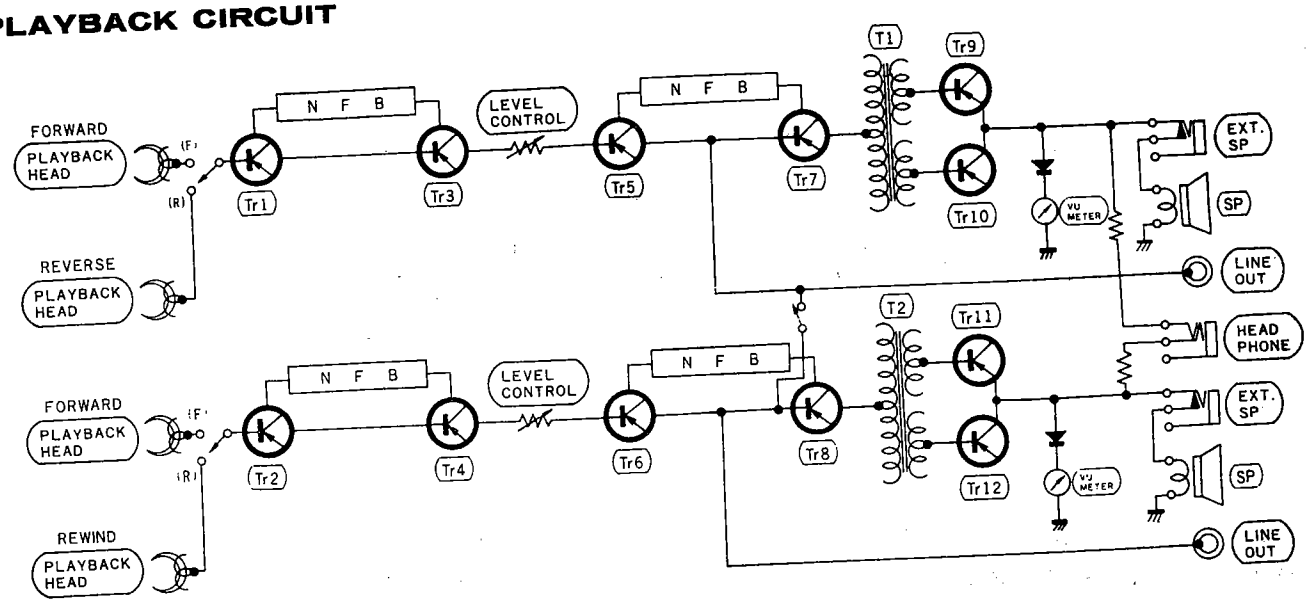


Fig. 4

DISASSEMBLY INSTRUCTIONS

HOW TO REMOVE PANEL

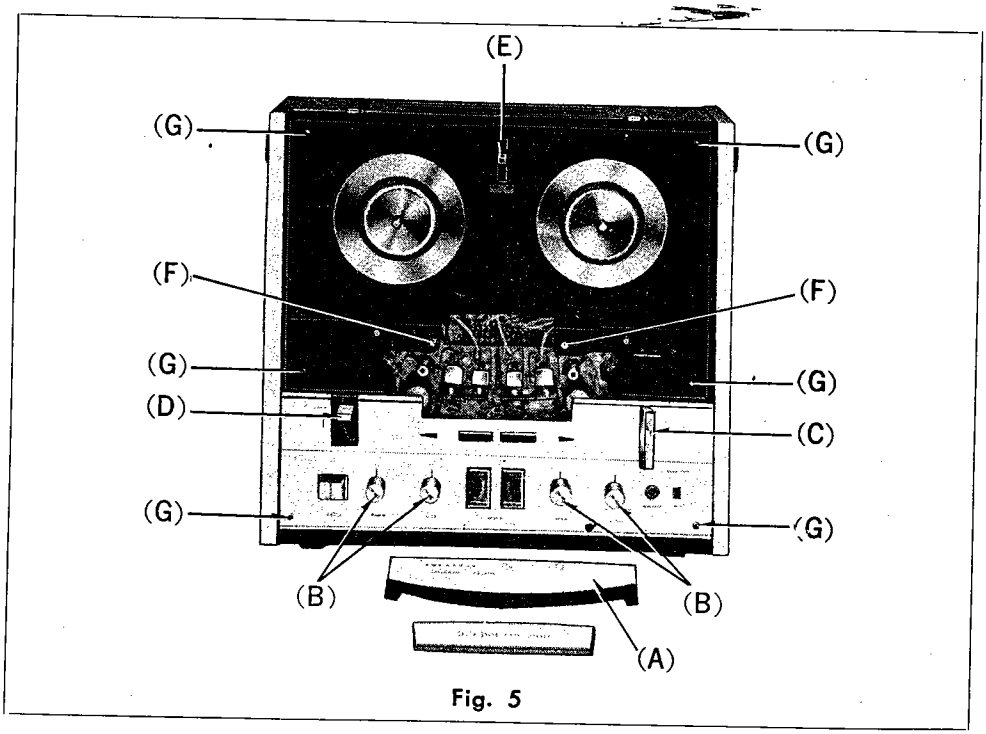


Fig. 5

1. Remove the Head Cover (A).
2. Remove the Volume Controls and Tone Controls (B) (4 Controls).
3. Remove the Function Lever Knob (C).
4. Remove the Pause Lever Knob (D).
5. Remove the Speed Selector Knob (E).
6. Remove 2 Setscrews (F) in the center.
7. Remove 6 Setscrews (G) of the Panel, and draw out the Panel Slowly.

HOW TO REMOVE BODY CASE

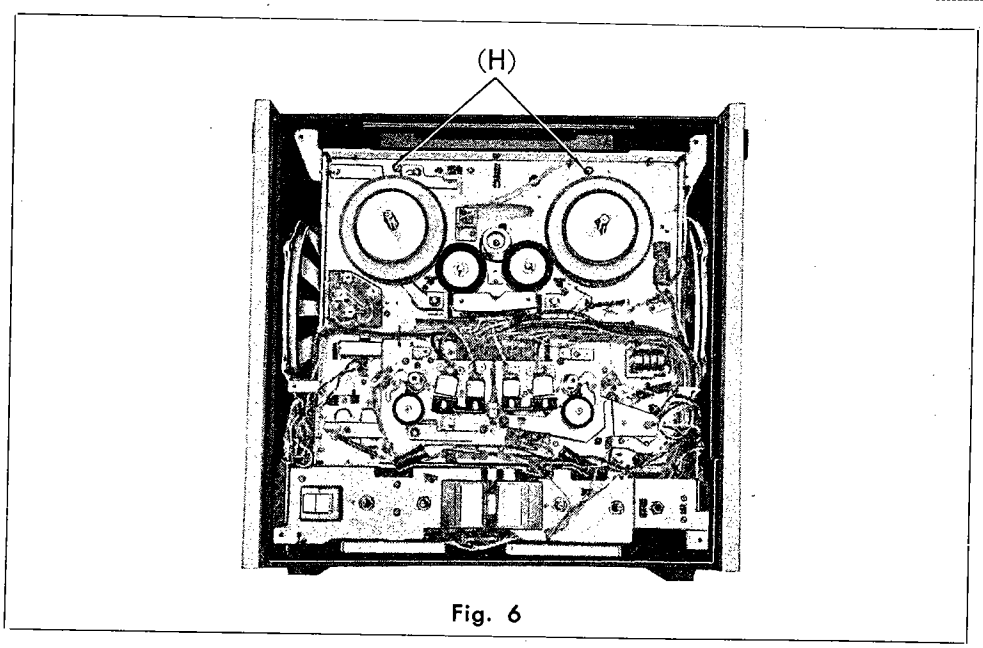


Fig. 6

1. First remove the Panel.
2. Remove 2 Setscrews (H) of the Mechanism Chassis.
3. Turn the set upside down, and remove 4 Setscrews of Rubber Feet.
4. Remove the Body Case by slowly lifting it.
5. Lead Wire of the Speaker can be separated if the Connector is removed.

TAPE TRANSPORT OPERATIONS

GENERAL OPERATING INSTRUCTIONS

RS-790S is operated with a 3-Position Lever.
When this Lever is set to PLAY, the unit is placed into the playback mode, and the Tape is forwarded to the right or left at a constant speed. When the Lever is set to PLAY while pressing the Record Button, the unit is placed into the recording mode. When the Lever is set to FAST WIND, the Tape is forwarded rapidly to the right or left. When the Lever is set to STOP thereby releasing all the mechanisms, the Tape stops running while the Motor keeps on rotating.

POWER SUPPLY

The Channel 2 Volume Control Knob is used for switching the power source ON and OFF. When the Tape finishes during recording, playback or fast forwarding, the Tension Arm switches off the power source as the Automatic Shut-Off Mechanism functions.

THREADING OF TAPE

The Tape can be threaded only when the Operating Lever is set at STOP. When it is set to other position than STOP, the Shut-Off Arm rises out so that the Tape cannot be threaded.

PLAYBACK

Set the Operating Lever to PLAY. Select the direction of Tape by the Direction Buttons. Tracks 1 and 3 are played back in the normal forward mode, while Tracks 4 and 2 in the reversing mode. The Sound Reflectors are opened so that the best results will be obtained.

RECORDING

Depress the Record Button (both Buttons in the case of a Stereo) of the Channel of which you desire to make recording. Set the Operating Lever to PLAY. Select the direction of Tape by the Direction Button. Tracks 1 and 3 can be recorded in the normal forward mode, while Tracks 4 and 2 in the reversing mode.

FAST FORWARD

When the Operating Lever is set to FAST WIND, the Tape is forwarded fast to the right or left. Select the direction of the Tape by the Direction Button before turning the Operating Lever. When changing the direction of fast forwarding, the Operating Lever should be set to STOP.

SELECTION OF TAPE SPEED

Tape speed can be selected only while the motor is rotating (only while the power is supplied). If the Speed Selector Lever is moved with the power source switched OFF, the Belt may get entangled with the Motor Pulley when the power source is switched on.

AUTOMATIC RECIPROCATION

If you attach Sensing Tape (Metal Sensing Foil) to both ends of the Tape, continuous playback is available between them until the Tape stops. In the case of recording, after a reciprocal recording, the Tape does not reverse for the 2nd reciprocation, but is taken up onto the Left Reel regardless of the Sensing Tape. This is in order to prevent re-recording on the once recorded Tape.

PLAYBACK

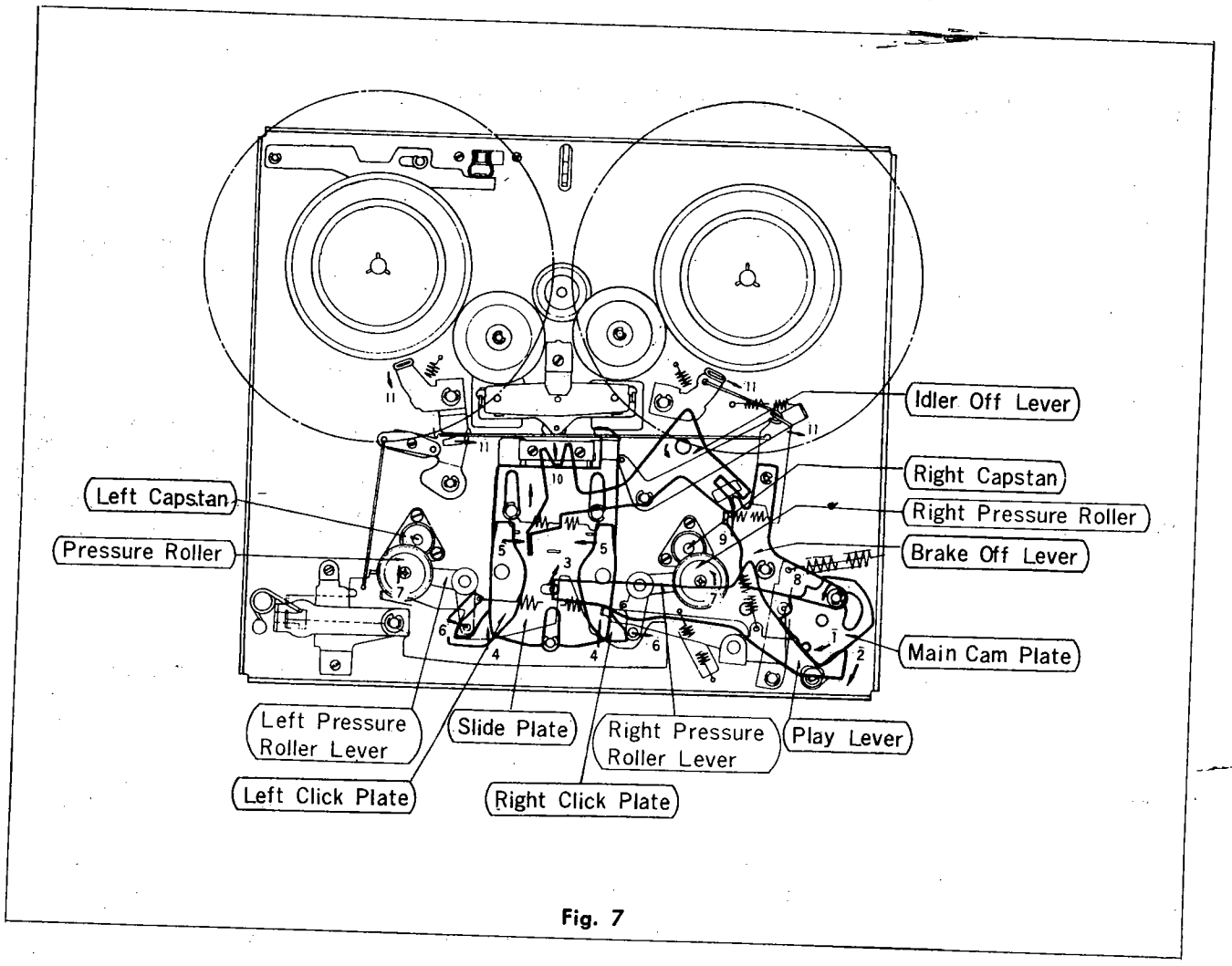


Fig. 7

(See Figs. 7~9. The numerals in parentheses correspond to Ref. Nos. inthe figure.)

When the Operating Lever is set to PLAY, the following actions occur simultaneously, and the Tape is forwarded to the right or left at a constant speed. (The direction of the Tape is selected by the Direction Button.)

As the Operating Lever is turned, the Main Cam Plate moves (1), and the Play Lever is pushed down (2). The Play Lever Pushes up the Slide Plate (3), and the Right and Left Paw Plates connected with it pushes the Right and Left Pressure Roller Levers (4, 6). The Pressure Roller Levers press the Pressure Rollers to the Right and Left Capstan Shafts, respectively (7). The pressure of the Pressure Roller against the Capstan is made by a Spring (5), and is uniform.

On the other hand, the Brake-Off Lever moved by the Main Cam releases both Reel Table Brakes (11), and at the same time moves the Idler-Off Lever, thereby making the Idler move freely (9, 10). During the normal forward, the motor pulley rotation (counterclockwise) (4) moves the Idler Operating Belt (5), and slant the Idler Lever (7), thereby pressing the Right Idler against the Motor Pulley and Right Reel Table Friction Pulley (7). At the same time, the motor pulley rotation makes the Right Reel Table (8) turn to take up the Tape through the Right Idler (6).

The motor pulley rotation is transmitted to the Capstan Belt (4) and turn the Right and Left Flywheel, thereby forwarding Tape at a constant speed by the Right and Left Capstan Shafts (9). At this time the R. P. M. of the Capstan Shaft on the tape takeup side is a little more than that of the Capstan on the reverse side due to reduction of the actual flywheel diameter by the belt tension, and therefore the Tape between both Capstans maintains its tension.

The same applies to the reverse forward. The Plunger performs selection of motor polarity and change of Heads, and the Tape is forwarded to the left through the same actions as in the normal forward.

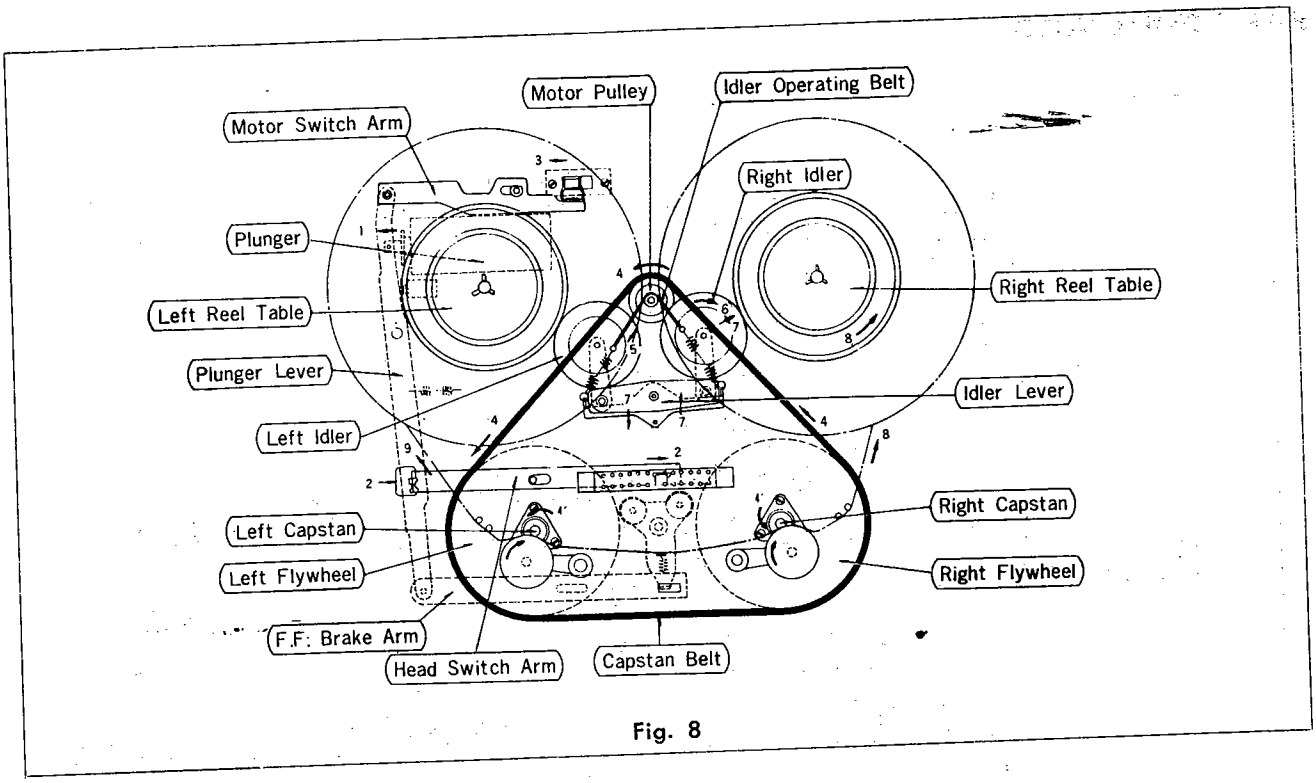


Fig. 8

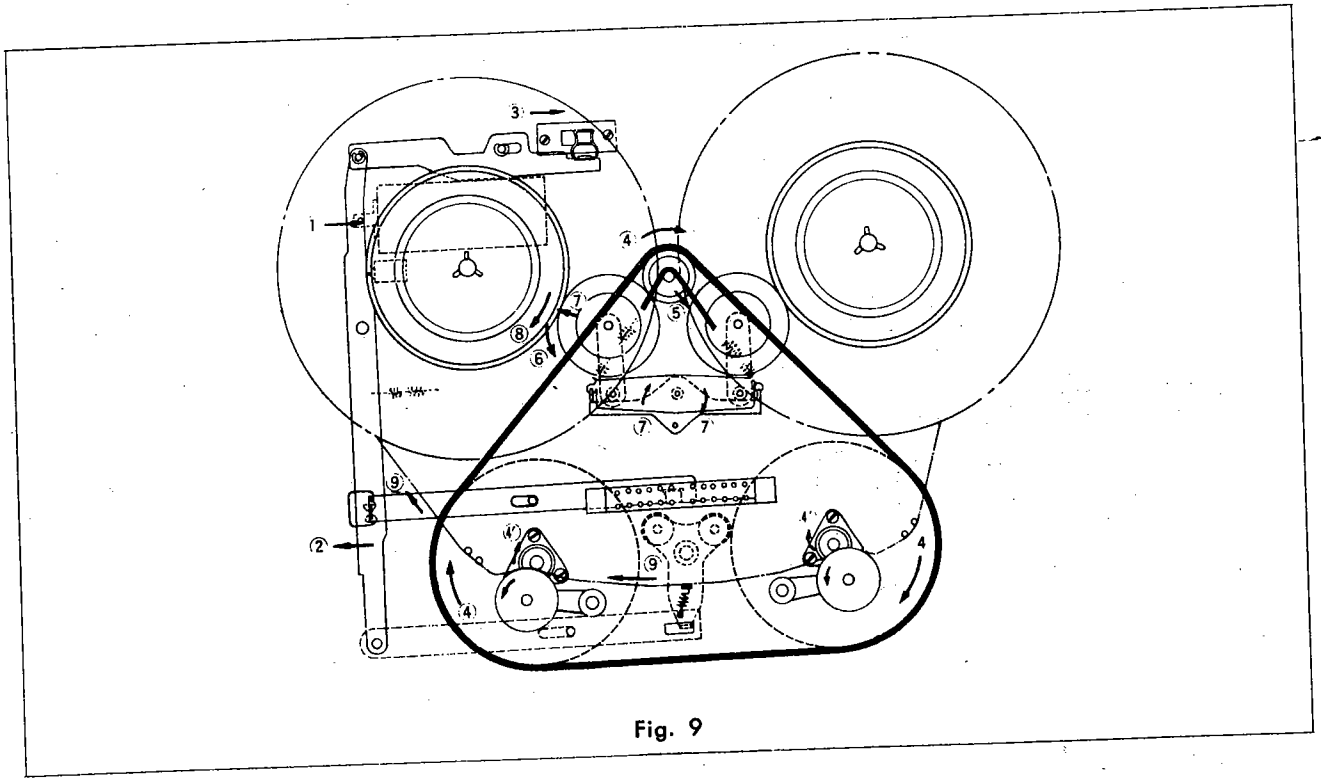


Fig. 9

RECORDING

When the Record Button is depressed, the Record/Playback Selector Switch on the Printed Base Plate is placed into the recording mode. When the Operating Lever is turned to PLAY, the Tape moves through the same actions as in playback, and carries on recording.

FAST FORWARD

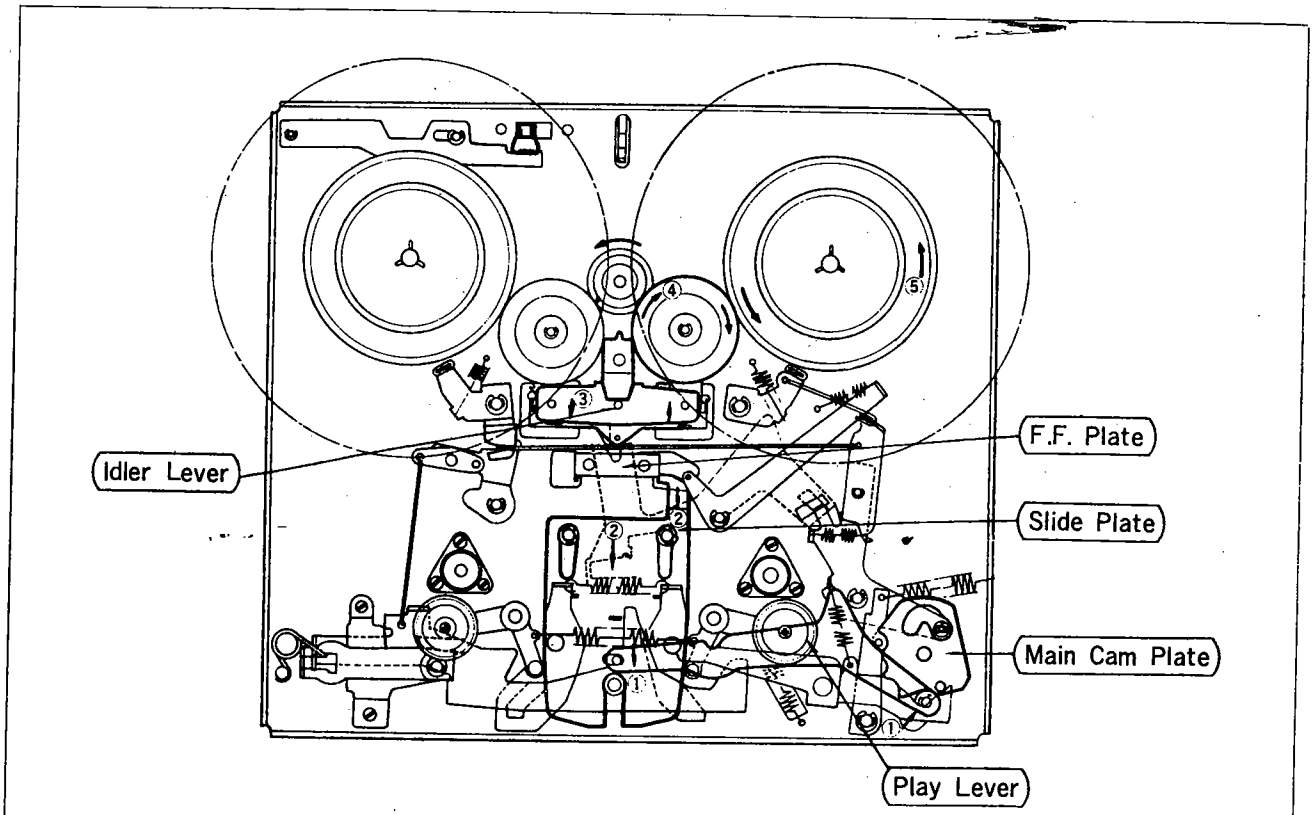


Fig. 10

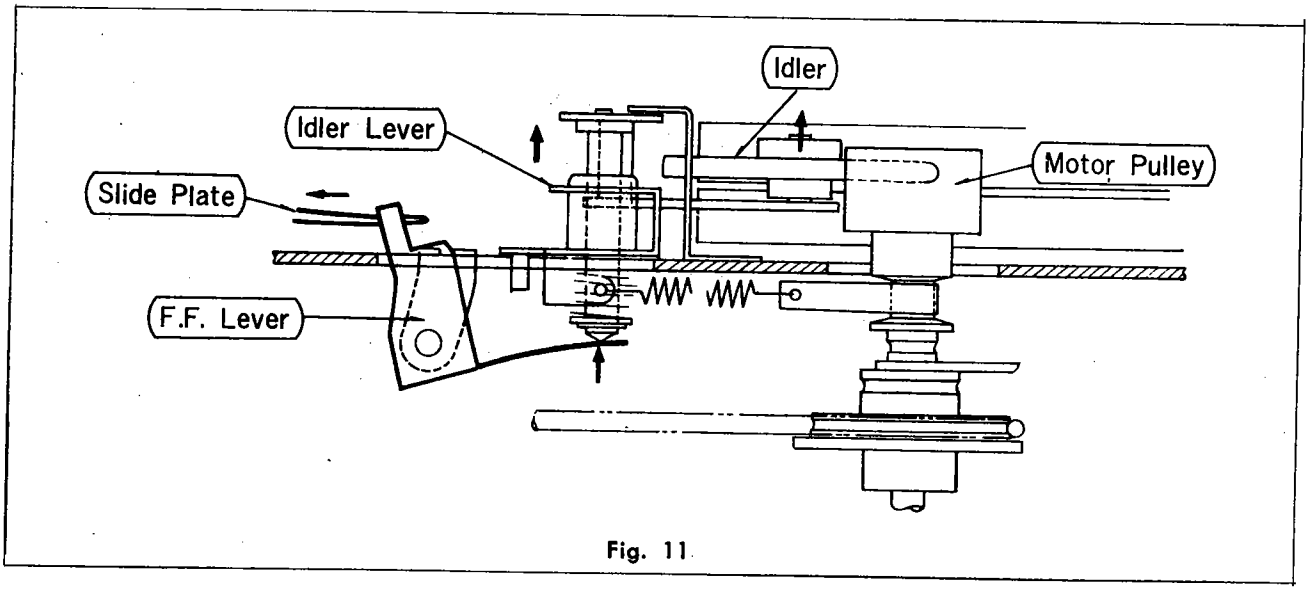


Fig. 11

When the Operating Lever is set to FAST WIND, the Main Cam Plate moves the Play Lever to bring down the Slide Plate. (See (1) and (2) of Fig. 10) The Paw at the slide plate end pulls the Fast Forward Lever, thereby pushing up the Idler Lever. (See Fig. 11) As the motor rotates, the Operating Belt works to press either the Right or Left Idler against the Reel Table and Motor Pulley. (Since the Idler is pushed upward as mentioned above, it is pressed against the Reel Table instead of the Friction Pulley.) (See Fig. 12) Through the Idler, the motor pulley rotation makes either the Right or Left Reel Table turn fast, thereby taking up the Tape.

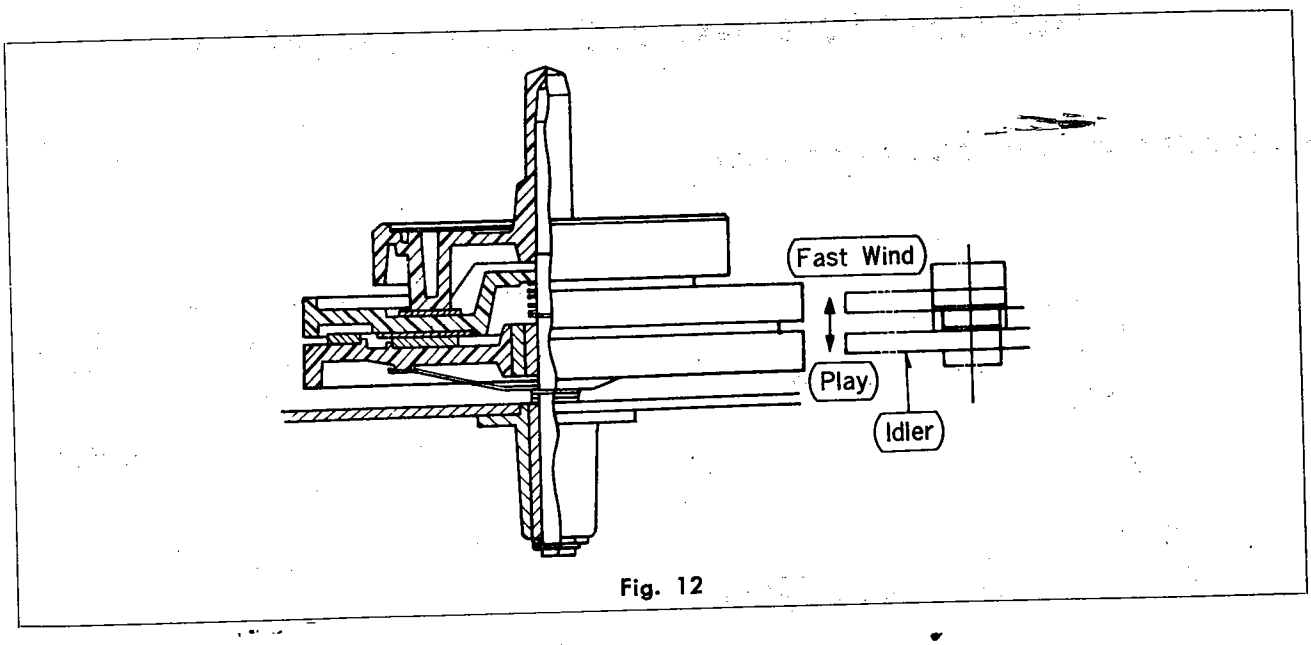


Fig. 12

INSTANT STOP (PAUSE CONTROL) (See Fig. 13)

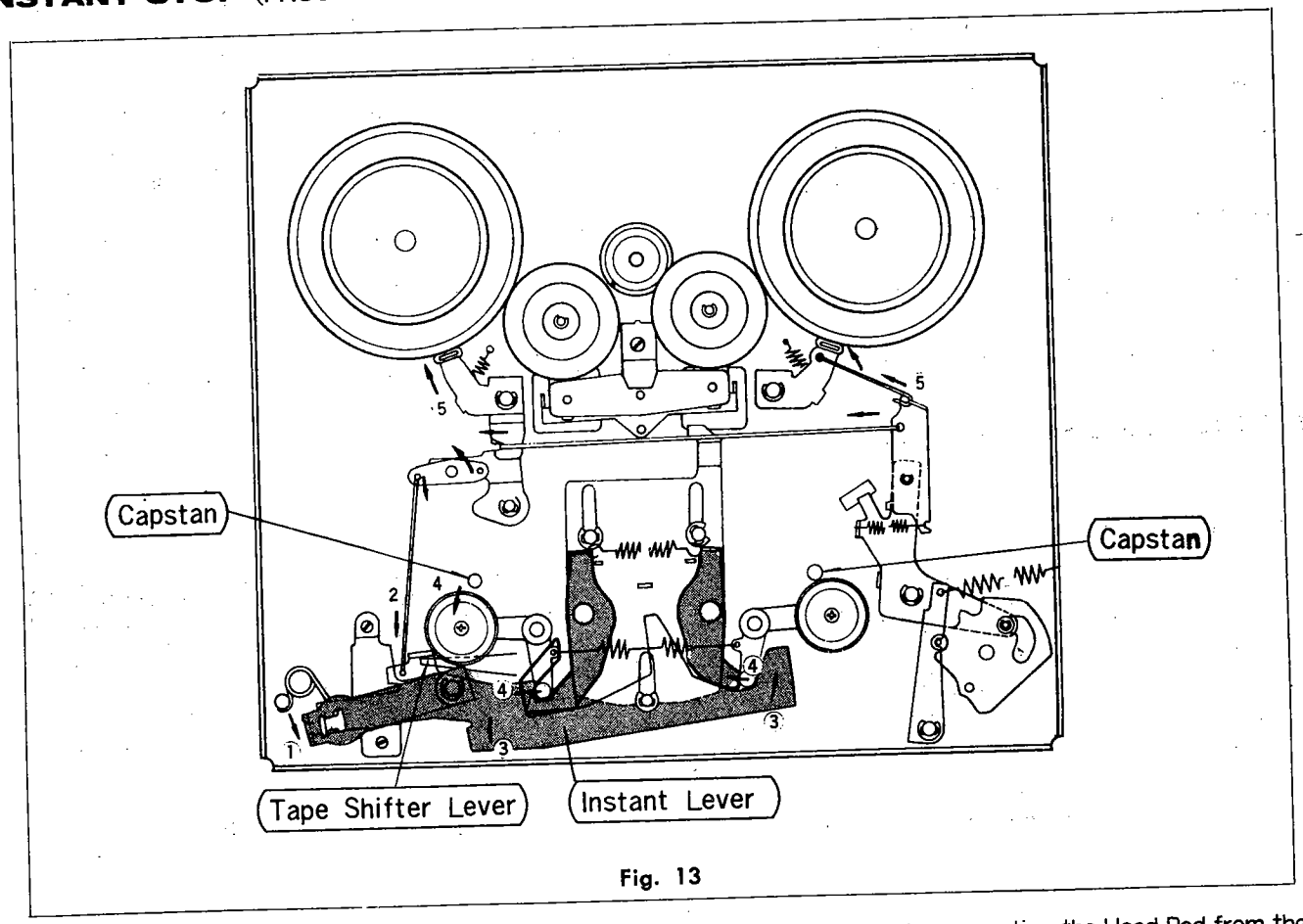


Fig. 13

When the Pause Lever is depressed during playback or recording, the following actions occur simultaneously and the Tape stops. When the Pause Lever is turned down, the Inst. Lever (3) moves the Right and Left Pressure Roller Levers, thereby separating the Pressure Roller from the Capstan. At the same time, it turns down the Tape Shifter Lever, thereby separating the Head Pad from the head, and the Tape from the head surface. Also, the Inst. Lever pulls the Brake Rod, thereby putting on the Reel Table Brakes. The Pause Lever is locked by the Spring. Either one of the Pause Lever and Operating Lever can be operated first.

MECHANICAL ADJUSTMENTS

PRESSURE OF PRESSURE ROLLER

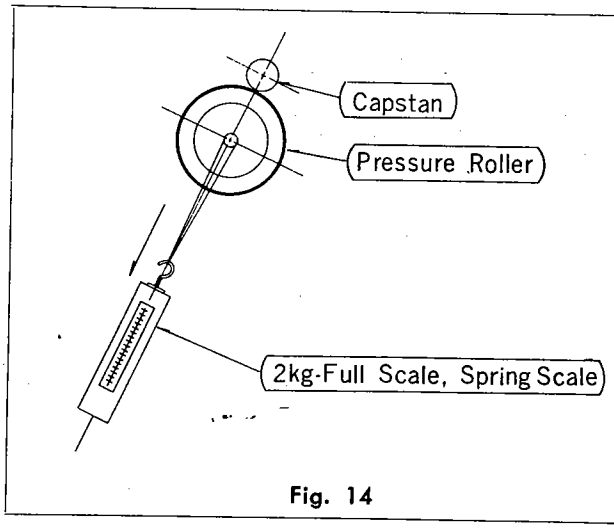


Fig. 14

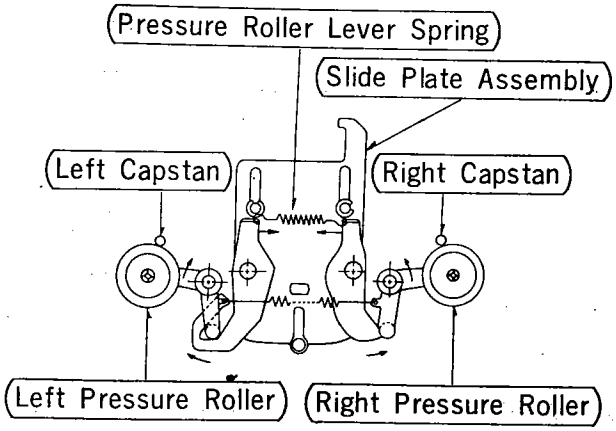


Fig. 15

Specified Value: 1.4~1.9 kg
The difference in pressure between the Right and Left Pressure Rollers should be less than 0.25 kg.

Measuring Method:

Use a spring scale of 2 kg full scale.
During the playback, pull the spring scale on the line between the center of the Capstan and that of the Pressure Roller in the separating direction, and take the reading of the spring scale when the Tape stops. (See Fig. 14)

Adjusting Method:

Make the adjustment by use of elongation and contraction of the Pressure Roller Lever Spring. (See Fig. 15)

PRESSURE OF HEAD PAD

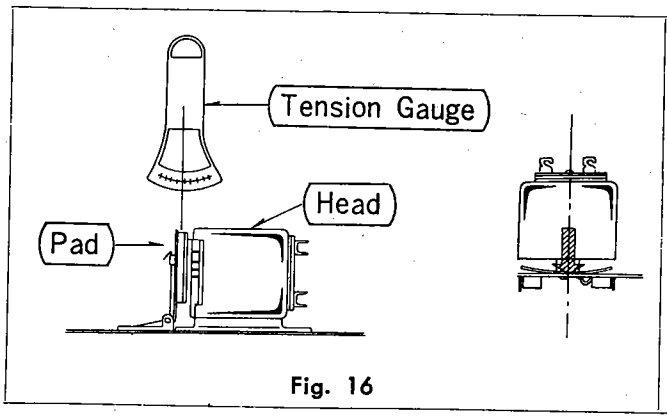


Fig. 16

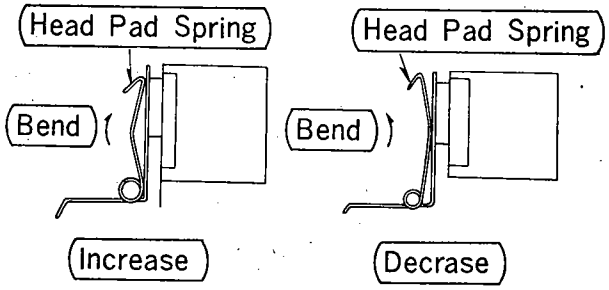


Fig. 17

Specified Value: (Erase Head) 5~10 g
(Record/Playback Head) 10~15 g

Measuring Method:

Measure the force of separating the Pad from the Head above the center of the Pad Plate by use of a tension gauge. (See Fig. 16)

Adjusting Method:

Make the adjustment by use of bending of the Head Pad Spring. (See Fig. 17)

TAPE TAKEUP TENSION DURING PLAYBACK

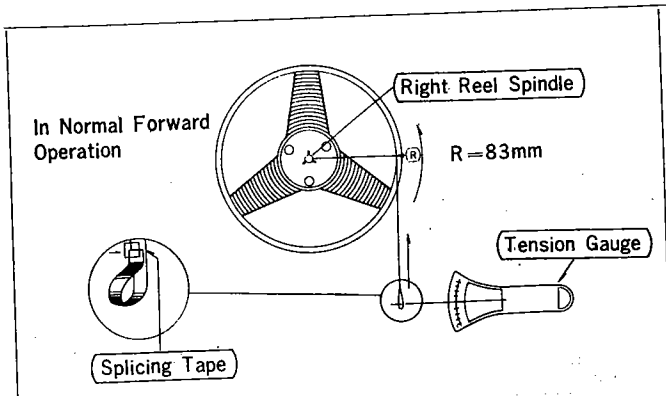


Fig. 18

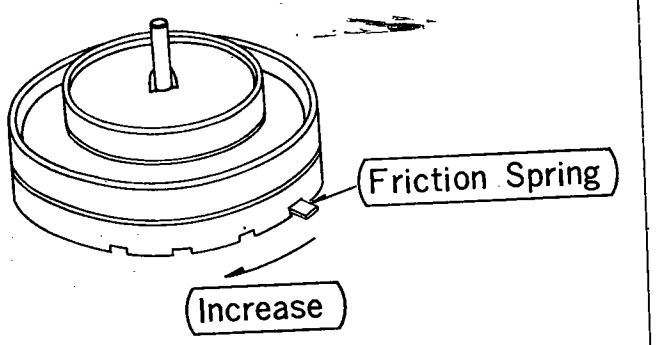


Fig. 19

Specified Value: 23~33 g

Measuring Method:

Make a loop of 7″ Tape End, suspend a tension gauge from it, place the set into the playback mode, and read the average value during a turn according as the Tape is taken up. (See Fig. 18)

Adjusting Method:

If the Friction Spring of the Reel Table is slided clockwise (4 stages), the takeup tension increases. Make the adjustment as to the Right and Left Reel Tables, respectively (in normal forward and reverse forward modes). (See Fig. 19)

TAKEUP TENSION DURING FAST FORWARD

Specified Value: More than 150 g

Measuring Method:

Same as that of takeup tension during playback, excepting that the set must be placed in the fast forward mode.

Adjusting Method:

Make sure that the Reel Table Felt, Slip Ring, etc. show no such abnormality as staining. There is no special method for this adjustment.

BACK TENSION DURING PLAYBACK

Specified Value: 12~25 g

Measuring Method:

Put the 7″ Tape on the takeup side, pull the Tape for a turn in the tape pulling out direction, and read the average value. (See Fig. 20)

Adjusting Method:

There is no special method for this adjustment. If the specified value is not satisfied, check if there is no stain or oil is not out on the Reel Table Shaft.

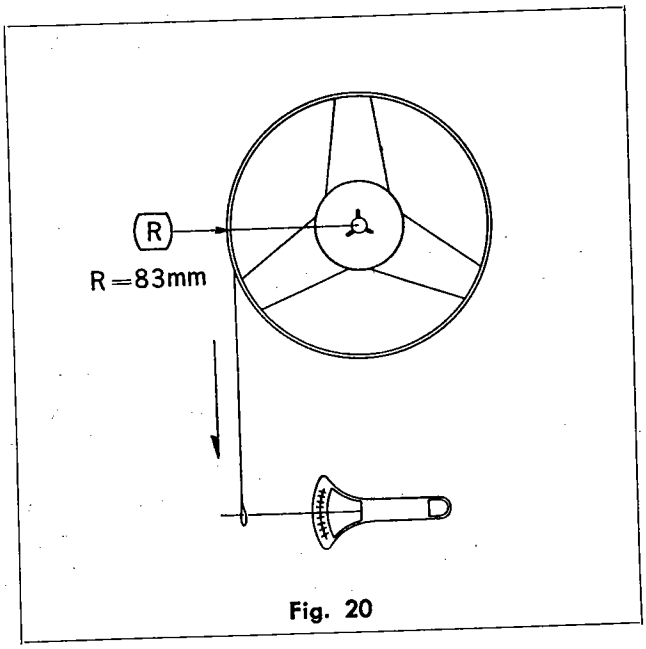


Fig. 20

BRAKE POWER

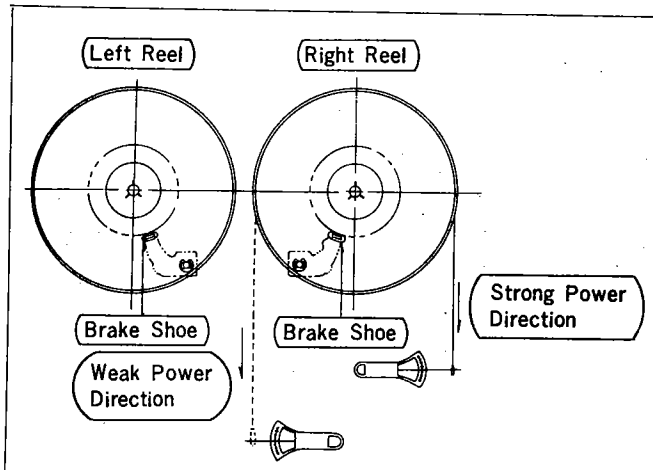


Fig. 21

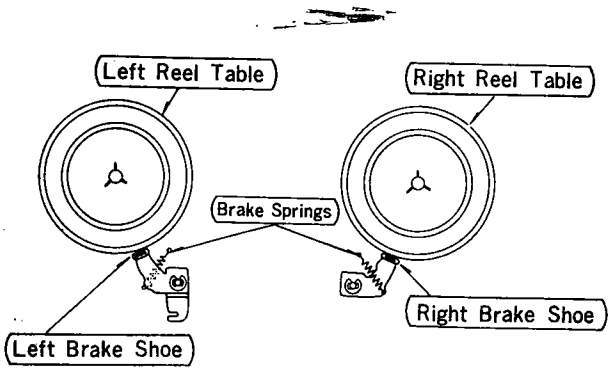


Fig. 22

Specified Value: (Strong Power Direction) 200~350 g
(Weak Power Direction) 40~150 g
The difference in brake power between the strong power direction and weak power direction should be more than 100 g. (One side Strong Power Direction, and the other side Weak Power Direction)

Measuring Method:
Suspend a tension gauge from the end of the 7″ Reel Tape in the stop mode, pull it and read the average value for a turn of the Reel. (See Fig. 21)

Adjusting Method:
Make the adjustment by use of elongation and contraction of the Right and Left Brake Springs. (See Fig. 22)

ADJUSTMENT OF PAUSE BRAKE

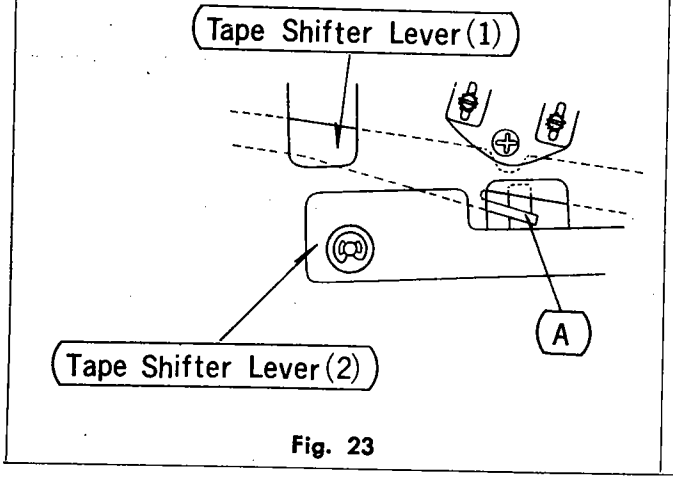


Fig. 23

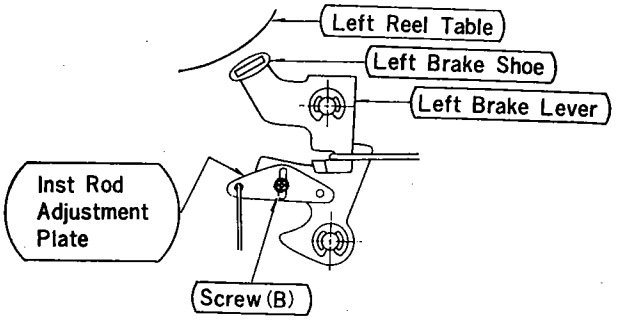


Fig. 24

1. When the Pause Lever is pulled down in the playback mod: The Pad Plate should move away from the Head by the time when (or at the same time that) both the 2 Pressure Rollers move away from the Capstan. If not, make the adjustment by bending the (A) part of the Tape Shifter Lever (1) by using a screwdriver. (See Fig. 23)

2. The Right and Left Brakes should be pressed against the Right and Left Reel Tables, respectively, after the Pause Lever is turned low and the Pressure Roller moves away from the Capstan. This timing can be modulated by loosening the Screw (B) shown in Fig. 24 and adjusting the Inst. Rod Adjusting Plate. After the adjustment, the Screw (B) must be locked with paint.

HEAD ADJUSTMENTS

HEAD HEIGHT

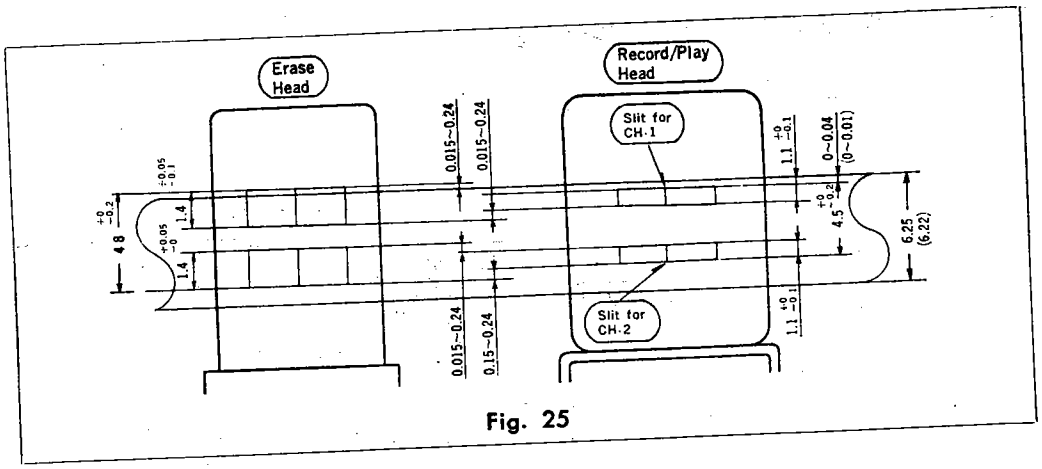


Fig. 25

The relative positions of Tape and Head are as shown in Fig. 25. The head height can be adjusted by Screws (1)~(3) of the Heads.

ANGLE ADJUSTMENT

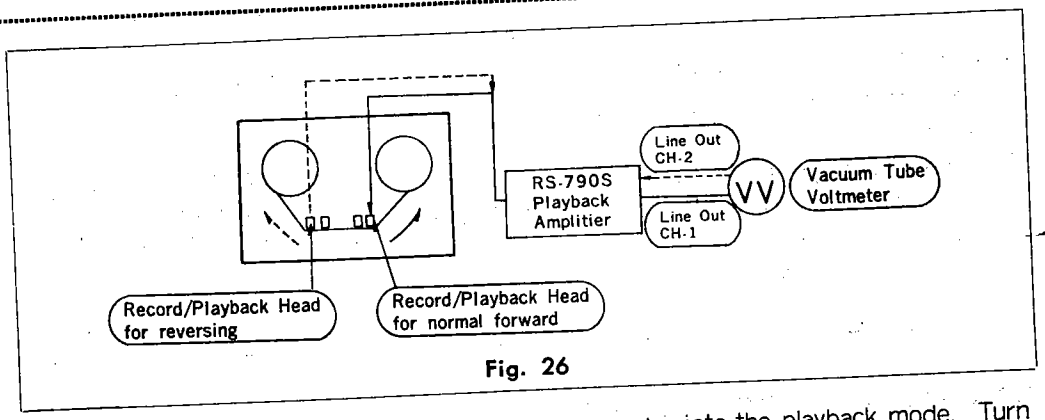


Fig. 26

Testers: Vacuum Tube Voltmeter, Standard Tape for 7 Kc (at 7-½ ips) Angle Adjustment (or Tape on which recording is made by a reliable tape recorder)

Connect wires as shown in Fig. 26, thread the Tape and place the tape recorder into the playback mode. Turn either of the Angle Adjustment Screws ((3) or (2) in Fig. 27) by a 1/4 turn, and make the adjustment so that the reading on the Vacuum Tube Voltmeter connected to the Line Out becomes maximum.

ERASE HEAD

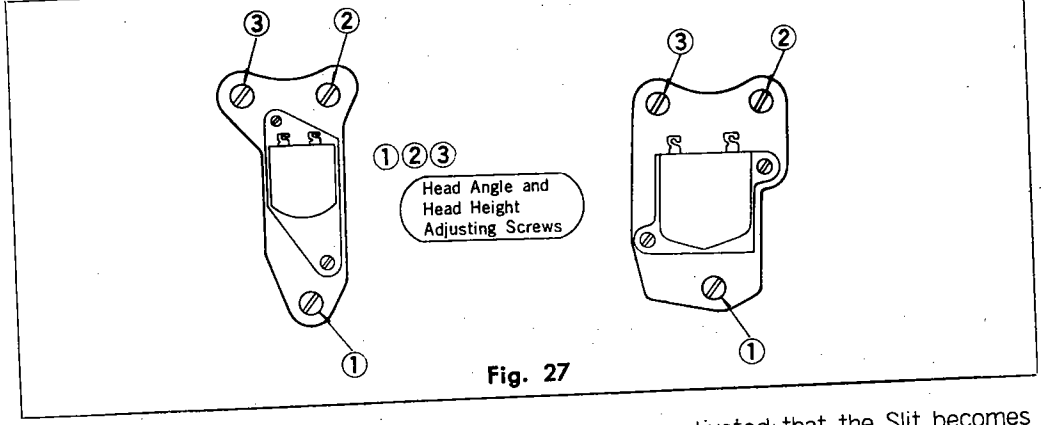


Fig. 27

After adjusting the angle and height of the Record/Playback Head, adjust the position of the Erase Head according to Fig. 25.

The Angle should be so adjusted that the Slit becomes perpendicular to the running tape (by observing with the eyes).

AMPLIFIER ADJUSTMENTS

BIAS OSCILLATOR FREQUENCY

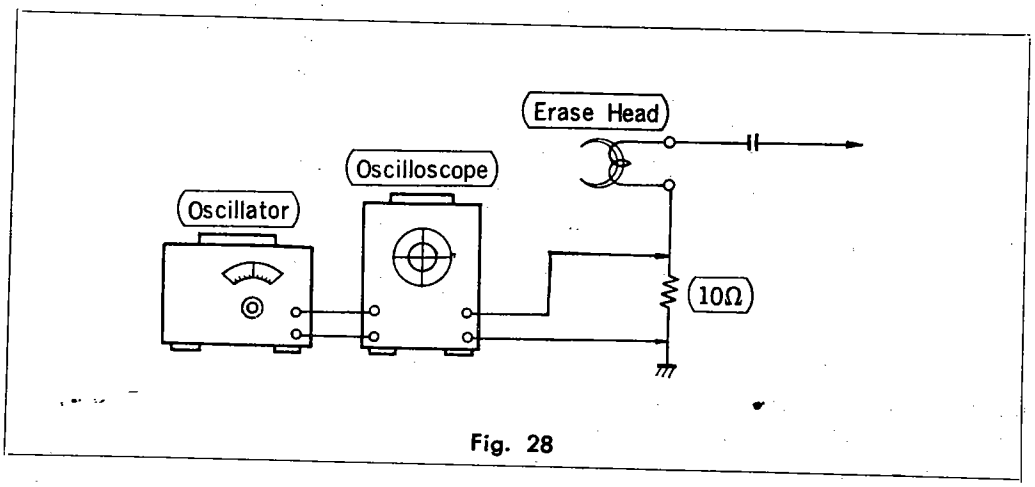


Fig. 28

Take the measurement in the recording mode.

1. Connect the 10Ω Resistor to the Erase Head in series.
2. Measure voltage at both ends of the 10Ω Resistor while comparing it with that of the Standard Oscillator.
3. For comparison, make the Lissajous' wave form in the Oscilloscope Braun Tube.
4. When 40~80 mA current is applied to the Erase Head, the Standard Frequency shall be 50 Kc ± 5 Kc in the stereo recording mode. When CH. 1 is in the recording mode and CH. 2 in the playback mode, or when CH. 1 is in the playback mode and CH. 2 in the recording mode, it shall be 50 Kc ± 6 Kc.

BIAS OSCILLATOR CURRENT

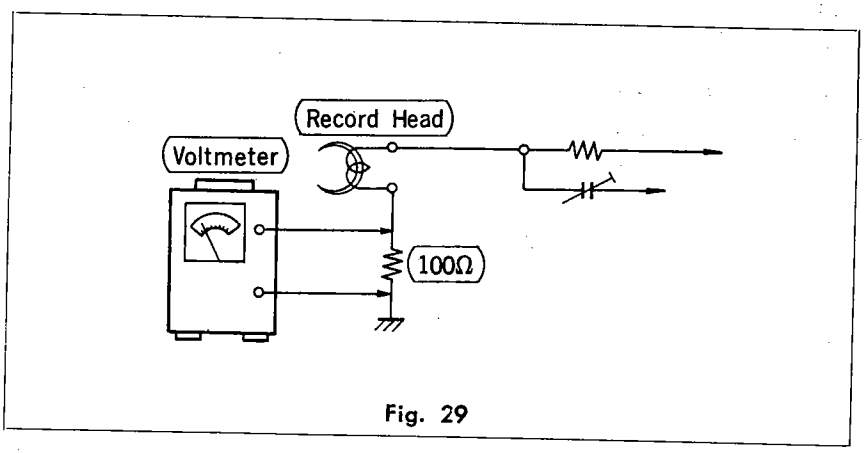


Fig. 29

Take the measurement in the recording mode.

1. Connect the 100Ω Resistor to the Record Head in series.
2. Measure voltage at both ends of the 100Ω Resistor and obtain the bias current value.

$$\text{Bias Current} = \frac{\text{Measured Voltage}}{\text{Resistance (100)}}$$

3. The Standard Bias Current Value shall be 0.5 mA ± 0.05 mA. But when the adjustment of bias current is required, it shall be more than 0.4 mA.

ERASING CURRENT

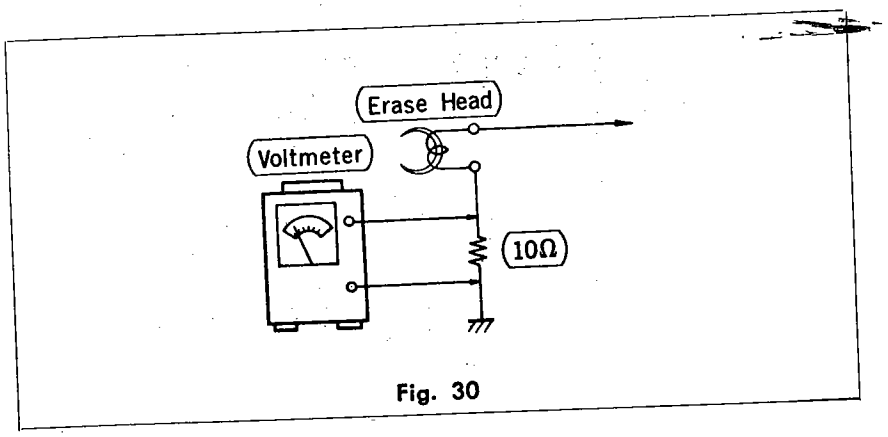


Fig. 30

Take the measurement in the recording mode.

1. Connect the 10Ω Resistor to the Erase Head in series.
2. Measure voltage at both ends of the 10Ω Resistor, and obtain the current value.

$$\text{Erasing Current} = \frac{\text{Measured Voltage}}{\text{Resistance (10)}}$$

3. The Standard Erasing Current shall be 60 mA±20 mA.
4. When taking the measurement with CH. 2 in the recording mode and CH. 1 in the playback mode, remove the Dummy Coil on the earth side, connect the Resistor between the Dummy Coil and the earth, and take the measurement.

RECORDING LEVEL

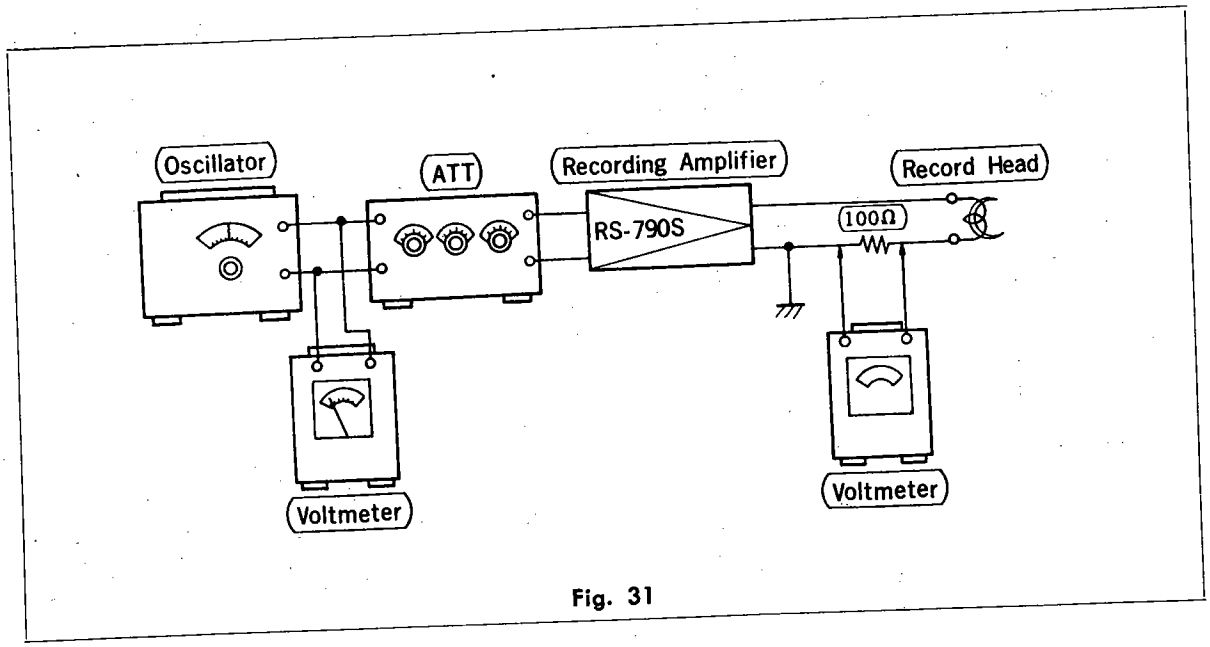


Fig. 31

1. Place the set into the stereo recording mode, stop the bias oscillation, and adjust the Attenuator so that the recording current becomes 0.03 mA.
2. Adjust VR9 and VR10 so that the level meter points 0 VU.
3. The measuring frequency shall be 1 Kc.

REPLACEMENT PARTS LIST

ATTENTION: Parts which are not listed are part of an assembly and are not stocked as a separate item.

To obtain parts not listed, order the entire assembly.

RESISTORS

Ref. No.	Description			Part No.
R1, 2	Carbon Resistor	100 KΩ	1/4 W	ERD-14TK104
R3, 4	Carbon Resistor	390Ω	1/4 W	ERD-14TK391
R5, 6	Carbon Resistor	22 KΩ	1/4 W	ERD-14TK223
R7, 8, 15, 16, 47, 48	Carbon Resirtor	5.6 KΩ	1/4 W	ERD-14VK562
R9, 10, 98, 99	Carbon Resistor	10 KΩ	1/4 W	ERD-14VK103
R11, 12, 94 ...	Carbon Resistor	150Ω	1/4 W	ERD-14VK151
R13, 14, 23, 24	Carbon Resistor	2.2 KΩ	1/4 W	ERD-14VK222
R17, 18	Carbon Resistor	12 KΩ	1/4 W	ERD-14VK123
R19, 20, 29, 30, 91	Carbon Resistor	2.7 KΩ	1/4 W	ERD-14VK272
R21, 22	Carbon Resistor	6.8 KΩ	1/4 W	ERD-14VK682
R25, 26	Carbon Resistor	270 KΩ	1/4 W	ERD-14VK274
R27, 28, 35, 36, 45, 46, 105 ...	Carbon Resistor	4.7 KΩ	1/4 W	ERD-14VK472
R31, 32	Carbon Resistor	1.8 KΩ	1/4 W	ERD-14VK182
R33, 34	Carbon Resistor	27 KΩ	1/4 W	ERD-14VK273
R37, 38	Carbon Resistor	1 KΩ	1/4 W	ERD-14VK102
R39, 40	Carbon Resistor	47Ω	1/4 W	ERD-14VK470
R41, 42	Carbon Resistor	3.3 KΩ	1/4 W	ERD-14VK332
R43, 44	Carbon Resistor	47Ω	1/4 W	ERD-14VK473
R49, 50	Carbon Resistor	330Ω	1/4 W	ERD-14VK331
R51, 52	Carbon Resistor	33Ω	1/4 W	ERD-14VK330
R53, 54, 61, 62	Carbon Resistor	270Ω	1/4 W	ERD-14VK271
R55, 56, 59, 60	Carbon Resistor	56Ω	1/4 W	ERD-14VK560
R57, 58, 63, 64	Carbon Resistor	1.2 KΩ	1/4 W	ERD-14VK122
R65, 66, 83, 84	Wire-wound Resistor	0.47Ω	1/2 W	ERW-12ROR47

Ref. No.	Description			Part No.
R67	Carbon Resistor	1.5 KΩ	1/4 W	ERD-14VK152
R68	Carbon Resistor	1.5 KΩ	1/4 W	ERD-14TK152
R69, 70, 71, 72	Solid Resistor	10Ω	1 W	ERC-1GM100
R73, 74	Carbon Resistor	120Ω	1/4 W	ERD-14TK121
R77	Carbon Resistor	560Ω	1/4 W	ERD-14VK561
R78	Carbon Resistor	560Ω	1/4 W	ERD-14TK561
R79, 80	Carbon Resistor	1.8 KΩ	1/4 W	ERD-14TK182
R81, 82	Solid Resistor	100Ω	1/2 W	ERC-12GM221
R85	Carbon Resistor	6.8 KΩ	1/4 W	ERD-14VK682
R87, 88	Carbon Resistor	470 KΩ	1/4 W	ERD-14VK474
R89, 90	Carbon Resistor	100 KΩ	1/4 W	ERD-14VK104
R92, 93	Carbon Resistor	100Ω	1/4 W	ERD-14VK101
R95	Wire-wound Resistor	1.5Ω	1/2 W	ERW-12R1R5
R96	Solid Resistor	68Ω	1 W	ERC-1GM680
R100, 101 ...	Solid Resistor	180Ω	1 W	ERC-1GM181
R102	Solid Resistor	270Ω	2 W	ERC-2GM271
R103	Fuse Resistor 0.1A	8Ω		ERU-2PC8R0
R104	Carbon Resistor	27Ω	1/4 W	ERD-14TK270

VARIABLE RESISTORS

VR1	Volume Control	5 KΩ-A	EVC-B05L30A53
VR2	Volume Control	5 KΩ-A	EVC-B9AL30A53
VR3, 4	Tone Control	20 KΩ-A	EVC-B0GL30A24
VR5, 6, 7, 8 ...	Gain Adjustment	20 KΩ-B	EVL-S3AA00B24
VR9, 10	Level Meter Adjustment	2 KΩ-B	EVL-T0AA00B23

CAPACITORS

Ref. No.	Description		Part No.
C1, 2, 5, 6, 21, 22, 25, 26, 29, 30	Electrolytic Capacitor	3μF	ECE-A15V3
C3, 4, 19, 20 ...	Electrolytic Capacitor	10μF	ECE-A6V10
C7, 8	Electrolytic Capacitor	50μF	ECE-A6V50
C9, 10	Mylar Capacitor	0.0015μF	ECQ-M05152MZ
C11, 12	Mylar Capacitor	0.022μF	ECQ-M05223KZ
C13, 14	Mylar Capacitor	0.0022μF	ECQ-M05222MZ
C15, 16	Electrolytic Capacitor	50μF	ECE-A15V50
C17, 18	Electrolytic Capacitor	30μF	ECE-A6V30
C23, 24	Electrolytic Capabitor	50μF	ECE-A6V50
C27, 28	Mylar Capacitor	0.047μF	ECQ-M05473MZ
C31, 32	Polystyrene Capacitor	270 PF	ECQ-S1271KZ
C33, 34	Electrolytic Capacitor	100μF	ECE-A6V100
C35, 36	Electrolytic Capacitor	220μF	ECE-A25V220Z
C37, 38, 39, 40	Mylar Capacitor	0.0047μF	ECQ-M05472MZ
C41, 42	Electrolytic Capacitor	1000μF	ECE-A15V1000
C43, 44	Mylar Capacitor	0.0068μF	ECQ-M05682MZ
C45	Mylar Capacitor	0.012μF	ECQ-M05123MZ
C47, 48	Mica Capacitor	90 PF	QCM-1D900K5
C49, 50	Mica Capacitor	120 PF	QCM-1D121K5
C51	Polystyrene Capacitor	1500 PF	ECQ-S1152JZ
C52, 53	Mylar Capacitor	0.1μF	ECQ-M05104MZ
C54	Electrolytic Capacitor	50μF	ECE-A25V50
C55	Electrolytic Capacitor	3000μF	ECE-M25R3000B
C56	Motor Capacitor	2μF	MP-3000V2μ
C57	Electrolytic Capacitor	100μF	ECE-B250H100
C59, 60	Electrolytic Capacitor	0.5μF	ECE-A15V0R5M
C61, 62	Electrolytic Capacitor	30μF	ECE-A15V30
C63	Mylar Capacitor	0.1μF	ECQ-M1104M
C64, 65	Mylar Capacitor	0.01μF	-
C66, 67, 68 ...	Paper Capacitor	0.1μF	ECN-R4104M
C69, 70	Mylar Capacitor	0.01μF	-

VARIABLE CAPACITORS

VC1, 2, 3, 4 ...	Trimmer Capacitor	QCV-2013-1

TRANSISTORS

Ref. No.	Description	Part No.
Tr1, 2, 7, 8 ...	Transistor	2SB 346
Tr3, 4, 5, 6 ...	Transistor	2SB 175A
Tr9, 10, 11, 12	Transister	2SB 473
Tr13, 14	Transistor	2SB 324

DIODE & RECTIFIERS

D1, 2	Diode	OA 70
D3	Silicon Rectifier	FR-1M
D4	Selenuim Rectifier	25F

THERMISTORS

TH1, 2, 3, 4 ...	Thermistor	QVM-300A
TH5	Thermistor	QVM-800B

COIL

L1	Erase Head Dummy Coil	QLH-9007

TRANSFORMERS

T1, 2	Input Transformer	QLA-0118-1
T3, 4	Recording Transformer	QLA-0337
T5	Oscillator Transformer	QLB-0128
T6	Power Transformer	QLP-0406

SWITCHES

S1, 2	Record/Playback Selector Switch	QSS-1021
S3	Forward/Reverse Head Selector Switch	QSS-1008
S4	Speed Selector Switch	ESD-1130
S5	Stereo/Monaural Selector Switch	QSS-1013
S6	Stop Switch	QSS-1043
S9	Speaker ON/OFF Switch	QSS-1035
S11	Automatic Shut-off Switch	QSM-0016
S12	Motor Selector Switch	QSS-1045
S14	Plunger Switch	QSM-0014
S16	Recording Automatic Stop Switch	QSB-0154
S17	FF and Rewind Prevten Switch	QSB-122

Ref. No.	Description	Part No.
S18	Reverse Prevent Switch	QSB-154
S19	Gain Adjustment Switch	QSS-1043
S21	Reverse Switch	QSB-0162
S22	Forward Switch	QSB-0157

ELECTRICAL PARTS

1	VU Meter-Left	QSL-0028
2	VU Meter-Righh	QSL-0029
3	Record/Playback Head	WY-411W
4	Erase Head	WY-504X
5	Relay	QSK-0110
6	Speaker	EAS-18D28SB
7	7-P MT Molded Socket	QJS-701
8	7-P Plug (M)	QJP-0921
9	RCA Pin Jack	QJA-902
10	Muniature Jack (M3-B)	QJA-104-1
10-1	Nut for Muniature Jack	QNQ-1006
10-2	Washer for Muniature Jack	QWQ-1046
11	Headphone Jack	QJA-0216
11-1	Nut for Headphone Jack	QWQ-1035
12	Pilot Lamp Sock	QJS-101-1
13	Pilot Lamp	QVL-101
14	Pilot Lamp Cover	QTV-1025
15	Pilot Lamp Cover	QTV-1010
16	AC Power Cord	QFC-1016F
17	HEYCO Bushing	QTD-1129
18	Heat Sink	QTH-1028
19	Circuit Board Assembly (main)	-
20	Circuit Board Assembly (equalization)	-
21	Circuit Board Assembly (head selector)	-
22	Circuit Board Assembly (gain adjustment)	-
23	2-P Lug Board	QET-1051
24	Lug Board with Wire	QEE-1077
25	Lug Board with Wire	QEE-1078
26	4-P Lug Board	QJT-4001-1
27	3-P Lug Board	QJT-3003-1
28	2-P Lug Board	QJT-2003-1

Ref. No.	Description	Part No.
29	5-P Lug Board	QJT-5002
30	4-P Lug Board	QJT-4002
31	Wire Spring	QTD-1121
32	Wire Cramper-A	QTD-1002
33	Wire Cramper-D	QTD-1005
34	Shield Plate	QTS-1079
35	Lug Terminal	QJT-0015
36	AC Power Middle Terminal	QBK-1053-1
37	Nut for Volume Control	QNQ-1004
38	Washer for Volume Control	QWQ-1008
39	Spring Washer for Volume Control	QWQ-2002
40	Recording Lever Angle	QMA-1206
41	Recording Lock Plate	QMF-1205
42	Recording Lever-1	QML-1419
43	Recording Lever-2	QML-1420
44	Recording Slide Plate	QML-1421
45	Recording Lock Plate Guide	QMA-1205
46	Switch Off Lever	QML-1422
47	Recording Switch Arm-1	QML-1423
48	Recording Switch Arm-2	QML-1424
49	Spring Hanger	QMA-1170
50	Pin (1.6ϕ×8)	QNP-116×8U3
51	Recording Lever Shaft	QMS-1318
52	Recording Arm Shaft	QMS-1319
53	Pin	QMN-1173
54	Fiber Plate	QBK-1081
55	Recording Arm Spring-1 Assembly	QXJ-0060
56	Recording Arm Spring-2 Assembly	QXJ-0061
57	Recording Lever Spring	QBT-1259
58	Recording Slide Spring Assembly	QXJ-0062
59	Cord Holder	QTD-1155
60	Leaf Switch Holding Plate	QMA-1207
61	Front Angle	QTT-1422
62	Left Jack Angle	QTT-1423
63	Right Jack Angle	QTT-1424
64	Circuit Board Angle-A	QTT-1379
65	Circuit Board Angle-B	QTT-3480

Ref. No.	Description	Part No.
66	Circuit Board Angle-C	QTT-1425
67	Circuit Board Angle-D	QTT-1426
68	Trimmer Angle	QTT-1427
69	Circuit Board Retainer	QTT-1428
70	Transformer Angle	QTT-1429
71	Heat Sink	QTH-1036
72	Cord Retainer	QTT-1430
73	Capacitor Angle	QTT-1431
74	Capacitor Band	QTT-1434
75	Protection Cover	QTS-1099
76	Relay Holding Plate	QBJ-1232
77	Capacitor Cover	QBK-1080
78	Pilot Lamp Holding Stand-Right	QTT-1432
79	Pilot Lamp Holding Stand-Left	QTT-1433
80	Jack Plate-Right	QGJ-1085
81	Jack Plate-Left	QGJ-1096
82	Jack Indication Plate-Right	QGS-2130
83	Jack Indication Plate-Left	QGS-2131
84	Angle for Cord Bushing	QTT-1314

MECHANICAL PARTS

101	Motor Base Plate Assembly	QXK-1096
102	Speed Selector Shaft Angle Assembly	QXE-0021
102-1	Speed Selector Shaft Angle	QMA-1187
102-2	Boss	QMN-1180
102-3	Speed Selector Lever	QML-1413
102-4	Stop Ring E5ϕ	QNS-504T3
102-5	Click Spring	QBP-1092
102-6	Thrust Ball	QDK-1003
103	Spring Washer SW3ϕ	QWS-302U3
104	Screw +M3ϕ×6	QHM-230×6U3
105	Motor Pulley-1 Assembly	QXP-0184
106	Small Screw	QHP-840×6U3
107	Motor Pulley-2	QDP-1178
108	Small Screw	QHP-840×6U3
109	Belt Shifter Stopper	QMA-1186
110	Spring Washer SW3ϕ	QWS-302U3

Ref. No.	Description	Part No.
111	Screw +M3ϕ×4	QHM-230×4U3
112	Belt Shifter	QMF-1192
113	Belt Shifter Bushing	QBJ-1206
114	Spring Washer SW3ϕ	QWS-302U3
115	Screw +M3ϕ×12	QHM-230×12U3
116	Pin (4G-37-M3)	QMN-1178
117	Spring Washer SW3ϕ	QWS-302U3
118	Nut N3ϕ	QMN-3022U3
119	Equalizer Switch Lever	QML-1400
120	Switch Spring Plate	QBP-1124
121	Aluminium Rivet 2ϕ×3	QHM-720×30B4
122	Equalizer Switch Spring	QBT-1249
123	Fiber Washer (5.2×10×0.5)	QBK-7027
124	Stop Ring E4ϕ	QNS-404T3
125	Spring Washer SW4ϕ	QWS-402U3
126	Screw +M4ϕ×6	QHM-230×4U3
127	Fiber Washer	-
128	Motor Capacitor	MP-300V2μ
129	Motor	4KC-20BPL
130	Record/Playback Head	WY-411W
131	Erase Head	WY-504X
132	Erase Head Spacer	QBJ-1216
133	R/P Head Spacer	QBJ-1215
134	R/P Head Pad Plate-Right Assembly	-
134-1	Pad Felt	QAP-1016
135	R/P Head Pad Shaft	QAP-1127
136	R/P Head Pad Plate-2	QAP-1111
137	R/P Head Pad Spring	QAP-1018
138	R/P Head Pad Plate-Left Assembly	-
139	Erase Head Pad Plate-Right	QAP-1153
140	Erase Head Pad Shaft	QAP-1019
141	R/P Head Pad Spring	QAP-1018
142	Erase Head Pad Plate-Left	QAP-1152
143	R/P Head Holding Plate	QKT-1225
144	Erase Head Holding Plate	QKT-1226
145	Lock Washer	QWG-202K3
146	Screw 2ϕ×3	QHN-120×3U3

Ref. No.	Description	Part No.
147	Screw +M3φ×6	QHM-230×6U3
148	Screw +S3φ×8	QHS-230×8U3
149	Spring Washer SW2φ	QWS-202U3
150	Screw −2φ×5	QHN-120×5U3
151	Head Spring Plate	QBP-1126
152	Tape Guide Pole-C	QAG-1126
153	Tape Guide Spring	QBC-1087
154	Tape Guide Washer	QWQ-1085
155	Limiter	QAG-1107
156	Nut N2.6φ	QNN-2622C1
157	Spring Washer SW2.6φ	QWS-262U3
158	Nut N2.6φ	QNN-2622U3
159	Tape Retainer-Left	QMA-1189
160	Screw +M2.6φ×12	QHM-266×12C1
161	Tape Retainer-Right	QMA-1188
162	Contact Pole	QMP-1126
163	Contact Lug	QJT-1003
164	Lock Washer 2.6φ	QWG-262K3
165	Nut N2.6φ	QNN-2622U3
166	Screw −PH2.6φ×14	QHN-126×14U3
167	Spring Washer SW2.6φ	QWS-262U3
168	Automatic Shut-Off Switch	QSM-0016
169	Switch Holding Plate	QMF-1201
170	Lock Washer 3φ	QWG-302K3
171	Screw −PH3φ×5	QHN-130×5U3
172	Fiber Washer 5.2×10×0.25	QBK-7085
173	Stop Ring E4φ	QNS-404T3
174	Shut-Off Switch Pin	QMN-1171
175	Balance Weight	QMN-1181
176	Lock Washer 3φ	QWG-302K3
177	Screw ×M3φ×6	QHM-230×6U3
178	Panel Angle-Left	QMA-1209
179	Spring Washer SW3φ	QWS-302U3
180	Panel Angle-Right	QMA-1208
181	Head Switch Arm	QML-1392
182	Fiber Washer 5.2×10×0.25	QBK-7085
183	Stop Ring E4φ	QNS-404T3

Ref. No.	Description	Part No.
184	Tape Shifter Lever-1	QML-1401
185	Fiber Washer 4.2×9×0.25	QBK-7007
186	Stop Ring E3φ	QNS-304T3
187	Tape Shifter Lever-2	QML-1402
188	Tape Shifter Holding Plate Assembly	-
189	Tape Shifter Assembly	-
189-1	Tape Shifter	QAS-1035
189-2	Pad Shifter	QAS-1036
189-3	Rivet 2φ×3	QHM-720×30B4
190	Spring Washer SW3φ	QWS-302U3
191	Screw +M3φ×4	QHM-230×4U3
192	Tape Shifter Spring	-
193	Reel Table Assembly	QXP-0185
193-1	Reel Upper Plate	QMF-1159
193-2	Reel Table	QDR-1041
193-3	Reel Table Felt-2	QBF-1118
193-4	Reel Table Pulley-1	QDP-1169
193-5	Reel Table Spring	QMF-1178
193-6	Polyethylene Slider	QBJ-3042
193-7	Pulley Pressure Spring	QBC-1082-1
193-8	Fiber Washer 6.2×11×0.5	QBK-7056
193-9	Stop Ring E5φ	QNS-504T3
193-10	Reel Table Slip Felt	QBF-1117
193-11	Reel Table Felt-3	QBF-1119
193-12	Reel Table Pulley-2	QDP-1170
193-13	Friction Spring	QBP-1123
194	Idler Lever Assembly	QXL-0144
195	Fiber Washer 6.2×11×0.5	QBK-7008
196	Stop Ring E5φ	QNS-504T3
197	Idler Lever Spring	QBT-1247
198	Idler Arm Assembly	QXA-0066
199	Fiber Washer 4.2×9×0.25	QBK-7007
200	Idler	-
201	Idler Felt	QBF-1121
202	Idler Washer	QWQ-1023
203	Fiber Washer 4.2×6×0.25	QBK-7075
204	Stop Ring E3φ	QNS-304T3

Ref. No.	Description	Part No.
205	Idler Operating Belt-1	QDB-1079
206	Idler Operating Belt-2	QDB-1080
207	Operating Belt Spring	QBT-1246
208	Idler Moveing Lever Assembly	QXL-0149
209	Stop Ring E10ϕ	QNS-1004T3
210	FF Lever Angle	QMA-1191
211	Tapping Screw 3ϕ×6	QHB-530×6U3
212	Leaf Switch Lever Assembly	QXL-0146
213	Switch Lever Spring Assembly	QXJ-0059
214	Fiber Washer 5.2×10×0.5	QBK-7027
215	Stop Ring E4ϕ	QNS-404T3
216	Brake Shoe	QBG-1134
217	Brake Lever-Left	QML-1404
218	Brake Lever Spring	QBT-1251
219	Stop Ring E5ϕ	QNS-504T3
220	Brake Lever-Right	QML-1405
221	Brake Rod-1	QMR-1070
222	Shatter Proof Spring	QBT-1243
223	Brake Rod-2	QMR-1071
224	Fiber Washer 6.2×11×0.5	QBK-7003
225	Fiber Washer 12.3×20×0.5	QBK-7087
226	Screw +M3ϕ×4	QHM-230×4U3
227	Lock Washer 3ϕ	QWG-302N3
228	Pause Rod Adjustment Plate	QMF-1202
229	Stop Ring E4ϕ	QNS-404T3
230	Fiber Washer 5.2×10×0.25	QBK-7085
231	Pause Rod Lever	QML-1415
232	Motor Switch Arm	QML-1409
233	Stop Ring E3ϕ	QNS-304T3
234	Stop Ring E4ϕ	QNS-404T3
235	Fiber Washer 5.2×10×0.5	QBK-7085
236	Switch Spring Plate	QBP-1124
237	Aluminium Rivet 2ϕ×3	QHM-720×30B4
238	Capstan Holding Nut	QNQ-1015
239	Panel Washer	QBJ-3035
240	60 c/s Capstan Sleeve (C-marked Motor)	QMS-1316
	60 c/s Capstan Sleeve (No-marked Motor)	QMS-1258
	60 c/s Capstan Sleeve (A-marked Motor)	QMS-1317
241	Stop Ring E5ϕ	QNS-504T3
242	Polyethylene Slider 6.2×12.4×0.25	QBJ-1205
243	Felt for Pressure Roller	QBF-1022
244	Capstan Shaft Retainer	QYQ-0068
245	Screw +M4ϕ×8	QHM-240×8U3
246	Spring Washer SW4ϕ	QWS-402U3
247	Polyethylene Slider	QBJ-3042
248	Brake Rod Lever	QML-1398
249	Fiber Washer 4.2×9×0.25	QBK-7007
250	Stop Ring E3ϕ	QNS-304T3
251	Tape Counter	QDC-0019
252	Tape Counter Angle	QMA-1193
253	Spring Washer 3ϕ	QWS-302U3
254	Screw +M3ϕ×4	QHM-230×4U3
255	Brake Off Lever Assembly	QXL-0147
255-1	Stop Ring E3ϕ	QNS-304T3
255-2	Roller	QDP-1183
256	Fiber Washer 6.2×11×0.5	QBK-7003
257	Stop Ring E5ϕ	QNS-504T3
258	Brake Rod Spring	QBT-1248
259	Recording Lock Spring	QBT-1190
260	Shut-Off Lever-1	QML-1407
261	Click Arm	QML-1412
262	Stop Ring E5ϕ	QNS-504T3
263	Click Roller	QDP-1184
264	Click Spring Assembly	QXJ-0058
265	Cam Assembly	QHH-0022
266	Stop Ring E5ϕ	QNS-504T3
267	Fiber Washer 6.2×11×0.25	QBK-7003
268	Pause Lever	QML-1416
269	Stop Ring E5ϕ	QNS-504T3
270	Pause Guide Plate Assembly	QXH-0025
271	Tapping Screw 3ϕ×6	QHB-530×6U3
272	Pause Lever	QML-1414
273	Pause Spring	QBN-1038
274	Stop Ring E5ϕ	QNS-504T3

Ref. No.	Description	Part No.
275	Fiber Washer 6.2×8.2×1.0	QBK-7014
276	Slide Plate Assembly	QXH-0024
276-1	Pressure Roller Spring Assembly	QXJ-0055
277	Stop Ring E5φ	QNS-504T3
278	Fiber Washer 6.2×11×0.25	QBK-7056
279	Spring Washer SW4φ	QWS-402U3
280	Nut N4φ	QNN-4022U3
281	Roller	QDP-1183
282	Stop Ring E3φ	QNS-304T3
283	Fiber Washer 6.2×8.2×0.5	QBK-7013
284	Pressure Roller Shaft	QMS-1296
285	Pressure Roller Lever-Left	QML-1388
286	Pressure Roller Lever-Right	QML-1389
287	Stop Ring E5φ	QNS-504T3
288	Pressure Roller Restoring Spring Assembly	QXJ-0056
289	Pressure Roller Lever Shaft	QMN-1177
290	Spring Washer SW4φ	QWS-402U3
291	Nut N4φ	QNN-4022U3
292	Reel Table Shaft Retainer	QYQ-0067
293	Spring Washer SW3φ	QWS-302U3
294	Screw +M3φ×6	QHM-230×6U3
295	Backtension Washer	QBJ-3015
296	Backtension Spring	QBC-1064
297	Fiber Washer 6.2×12×1.0	QBK-7040
298	Stop Ring E5φ	QNS-504T3
299	Tape Counter Pulley	QDP-1181
300	Screw +M4φ×8	QHM-240×8U3
301	Mechanism Base Plate Foot (F-L)	QMA-1197
302	Mechanism Base Plate Foot (B-L)	QMA-1199
303	Mechanism Base Plate Foot (B-R)	QMA-1200
304	Mechanism Base Plate Foot (F-R)	QMA-1198
305	Tapping Screw 4φ×8	QHB-540×8U3
306	Screw +M4φ×5	QHM-240×5U3
307	Spring Washer SW4φ	QWS-402U3
308	Mechanism Base Plate Assembly	-
309	Polythylene Slider	QBJ-3042
310	Fiber Washer 6.2×8.2×1.0	QBK-7014

Ref. No.	Description	Part No.
311	Spring Hook	QMF-1197
312	Tapping Screw +3φ×6	QHB-530×6U3
313	Brake Lever Spring	QBT-1251
314	Switch Holding Plate-2	QMA-1192
315	Plunger Switch	QSM-0014
316	Spring Washer SW2.6φ	QWS-262U3
317	Screw −PH2.6φ×14	QHN-126×14U3
318	Plunger Lever Assembly	QXL-0148
319	Stop Ring E5φ	QNS-504T3
320	Plunger Lever Spring Assembly	QXJ-0065
321	Adjustment Plate Assembly	QXH-0026
322	Lock Washer 3φ	QWG-302U3
323	Screw +M3φ×4	QHM-230×4U3
324	F. W. Brake Arm	QML-1411
325	Fiber Washer 4.2×9×0.25	QBK-7007
326	Stop Ring E3φ	QNS-304T3
327	Fiber Washer 5.2×10×0.5	QBK-7027
328	Stop Ring E4φ	QNS-404T3
329	Fiber Washer 6.2×11×0.25	QBK-7056
330	Recording Lever Arm Assembly	QXA-0067
331	Fiber Washer 5.2×10×0.25	QBK-7085
332	Stop Ring E4φ	QNS-404T3
333	Play Lever Assembly	QXL-0150
333-1	Cam Roller	QDP-1126
333-2	Stop Ring E4φ	QNS-404T3
334	Play Lever Spring Assembly	QXJ-0057
335	Pause Knob Spring	QBN-1038
336	Fiber Washer 6.2×11×0.5	QBK-7003
337	Play Lever Shaft	QMS-1301
338	Screw +M3φ×20	QHM-230×20U3
339	F. W. Brake Plate Spring	QBP-1128
340	F. W. Brake Lever Assembly	QXL-0146
341	F. W. Brake Spring	QBT-1253
342	Fiber Washer	QBK-7039
343	F. W. Brake Boss	QMM-1127
344	F. W. Brake Roller	QBG-1135
345	Spring Holding Washer	QWQ-1070

Ref. No.	Description	Part No.
346	Brake Roller Spring	QBC-1051
347	Nut	QNN-3022U3
348	Fiber Washer 6.2×11×0.5	QBK-7003
349	Stop Ring E5ϕ	QNS-504T3
350	Flywheel Spring	QBC-1088
351	Flywheel Assembly	QXF-0035
352	Thrust Ball	QDK-1006
353	Ball Retainer	QMD-1004-2
354	Flywheel Retainer	QMA-1195
355	Spring Washer SW4ϕ	QWS-402U3
356	Screw +M4ϕ×8	QHM-240×8U3
357	Stop Switch Lever	QML-1408
358	Fiber Washer 5.2×10×0.15	QBK-7085
359	Stop Ring E4ϕ	QNS-404T3
360	FF Lever	QML-1403
361	FF Lever Plate Spring	QBP-1125
362	Copper Rivet	QHM-762×30B2
363	FF Lever Shaft	QMS-1306
364	Stop Ring E3ϕ	QNS-304T3
365	Idler Off Lever	QML-1394
366	Fiber Washer 6.2×11×0.5	QBK-7003
367	Stop Ring E5ϕ	QNS-504T3
368	Plunger	QME-0111
369	Pin 1.6ϕ×8	QNP-116×8U3
370	Spring Washer SW4ϕ	QWS-402U3
371	Screw +M4ϕ×4	QHM-240×6U3
372	Screw +MS3ϕ×6	QHV-230×6C1
373	Pressure Roller Cover	QBF-1022
374	Felt for Pressure Roller	QDP-1129-1
375	Pressure Roller	

CABINET PARTS

401	Panel Assembly	QYP-0116
401-1	Screw	QHN-220×5U3
401-2	Amp. Panel	QGP-1076
401-3	Lamp Cover	QBJ-1235
401-4	Spring Washer SW4ϕ	QWS-402U3
401-5	Nut N4ϕ	QNN-4022U3
401-6	Panel	QGP-1075
401-7	Hinge-E	QKC-1050
401-8	Speed Indicator Plate	QGS-2134
401-9	Panel Ornament	QGK-1164
401-10	Nut N3ϕ	QNN-3022U3
401-11	Spring Washer SW3ϕ	QWS-302U3
401-12	F/R Selector Button Spring	QBP-1130
401-13	F/R Selector Button Metal	QKT-1243
401-14	Forward, Reverse Selector Button	QGO-1040
401-15	Tapping Screw	QHB-530×6U3
401-16	Lid Spring	QBP-1131
401-17	Panel Cover-B	QBJ-1089
401-18	Panel Cover	QBJ-1237
401-19	Guide Pole	QMP-1135
401-20	Screw	QHS-230×10U3
401-21	Nut N2.6ϕ	QNN-2622U3
401-22	Spring Washer SW2.6ϕ	QWS-262U3
402	Body Case Assembly	QYB-0125
402-1	Handle	QYH-0019
402-2	Handle Ornament	QGK-1252
402-3	Screw	QHV-226×8V1
402-4	Handle Plate	QGB-1206
402-5	Handle Cover	QKT-1242
402-6	Collar	
402-7	Handle Metal	QKT-1240
402-8	Handle Wadding	QBG-1133
402-9	Handle Retainer	QBJ-1231
402-10	Reinforce Plate	QKT-1241
402-11	Body-Case	QKM-1066
402-12	Spring Washer SW4ϕ	QWS-402U3
402-13	Screw PH4ϕ×8	QHN-240×8U3
402-14	Screw PH4ϕ×20	QHN-240×20U3
402-15	Speaker Holding Rubber	QBG-1107
402-16	Speaker Holding Metal	QKT-1248
402-17	Nut N4ϕ	
402-18	Speaker	

Ref. No.	Description	Part No.
402-19	Rubber Foot	QKA-1046
402-20	Speaker Net	QKN-1033
402-21	Ornament Grille-A	QGK-1249
402-22	Screw	QHN-220×4V1
402-23	Hinge-A	QKC-1046
402-24	Stay Stopper	QBG-1141
402-25	Tapping Screw	QHB-530×6V3
402-26	Grille-Right	QKG-1015
402-27	Tapping Screw	QHB-530×12V3
402-29	Hinge-D	QKC-1049
402-30	Reflector Stay-Right	QKT-1244
402-31	Tapping Screw	QHB-530×12V3
402-32	Ornament Grille-B	QGK-1250
402-33	Reflector-Right	QBJ-1229
402-34	Panel Holding Rubber	QBG-1138
402-35	Stay Rubber	QBG-1140
402-36	Accessories Compartment Lid	QKD-1072
402-37	Lib Knob	QGT-3012
402-38	Lid Lock Spring	QBP-1086
402-39	Tapping Screw 2φ×5	QHB-520×4V3
402-40	Washer W2φ	QWP-2012N1
402-41	Tapping Screw	QHB-530×10V3
402-42	Grille-Left	QKG-1016
402-43	Reflector Stay-Left	QKT-1247
402-44	Reflector-Left	QBJ-1230
402-45	Hinge-B	QKC-1047
402-46	Hinge-C	QKC-1048
403	Upper Lid Assembly	QYA-0069
403-1	Upper Lid	QKF-1048
403-2	Lid Name Plate	QGB-1208
403-3	Hinge-F	QKC-1051
403-4	PANASONIC Mark	QGN-1031
403-5	Screw	QHN-220×4CL1
404	Head Cover Assembly	QYR-0080
405	Mount Assembly	QYM-0047
406	Function Knob Assembly	QYT-0068
406-1	Function Knob	QGT-2042
406-2	Function Knob Ornament	QGK-1256
406-3	Screw	QHQ-1097
407	Speed Selector Knob Assembly	QGT-2114
408	Volume Control Knob	QGT-1070
409	Record Button	QGQ-1041
410	Cue Knob	QGT-2044
411	Rubber Foot	QKA-1042
412	VU Meter Holding Felt	QBF-1127
413	Screw	QHN-240×12CL1
414	Screw	QHN-230×12U3
415	Washer	QWP-3012N1
416	Screw	QHN-240×20CL1
417	Washer	QBJ-3048
418	Record Button	QGO-1041
419	Cue Knob	QGT-2044

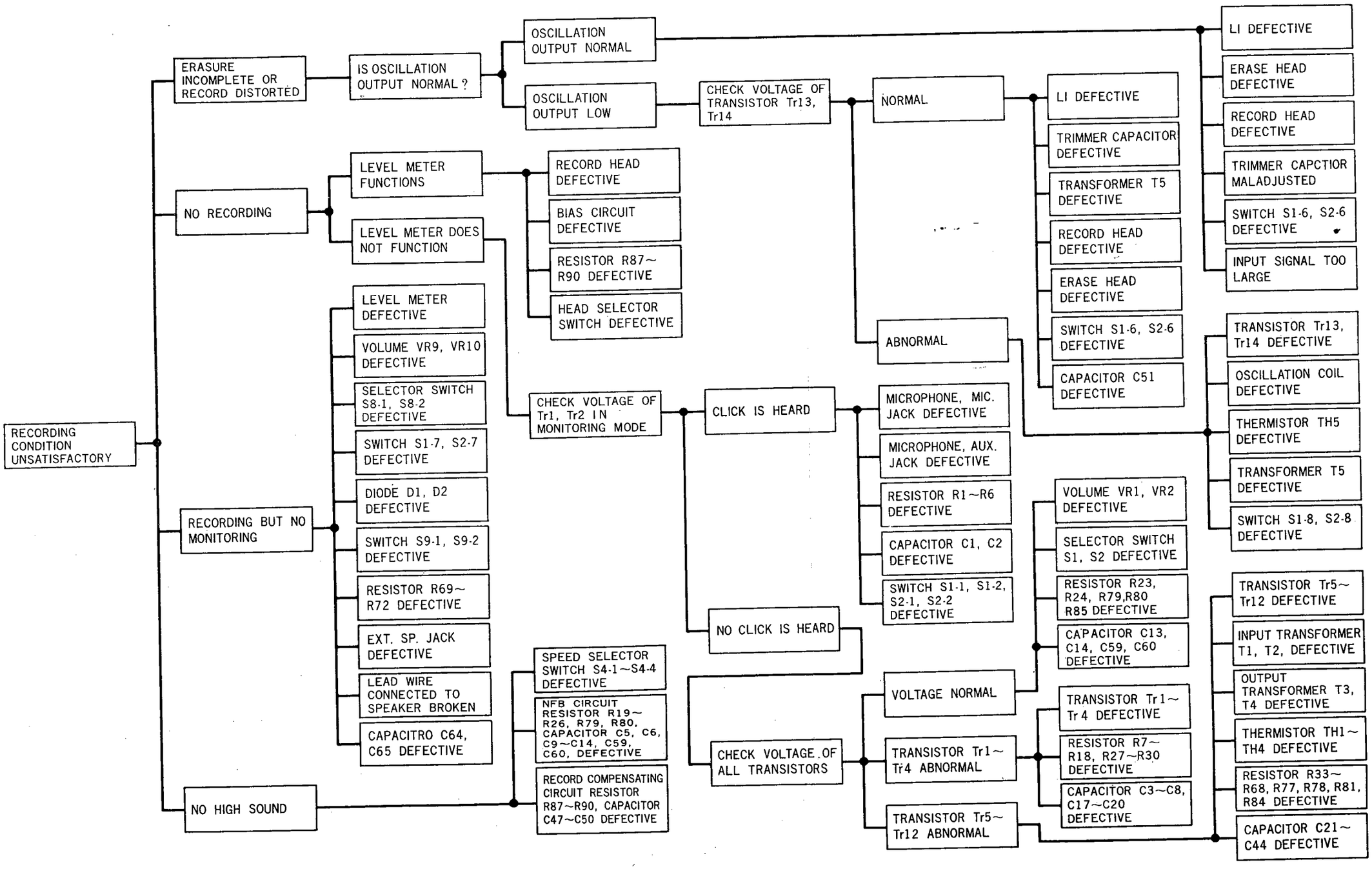
ACCESSORIES

431	7″ Recording Tape	QFT-71PZ
432	7″ Empty Reel	QFR-71PZ
433	Dynamic Microphone	WM-2057P
435	Microphone Stand	WN-115P
435	Reel Holder	QBG-1030-1
436	Connection Cord-C	QEB-14P-1
437	Sensing Hoil	QFS-0004
438	Splicing Tape	QFS-2-1
439	Instruction BooK	

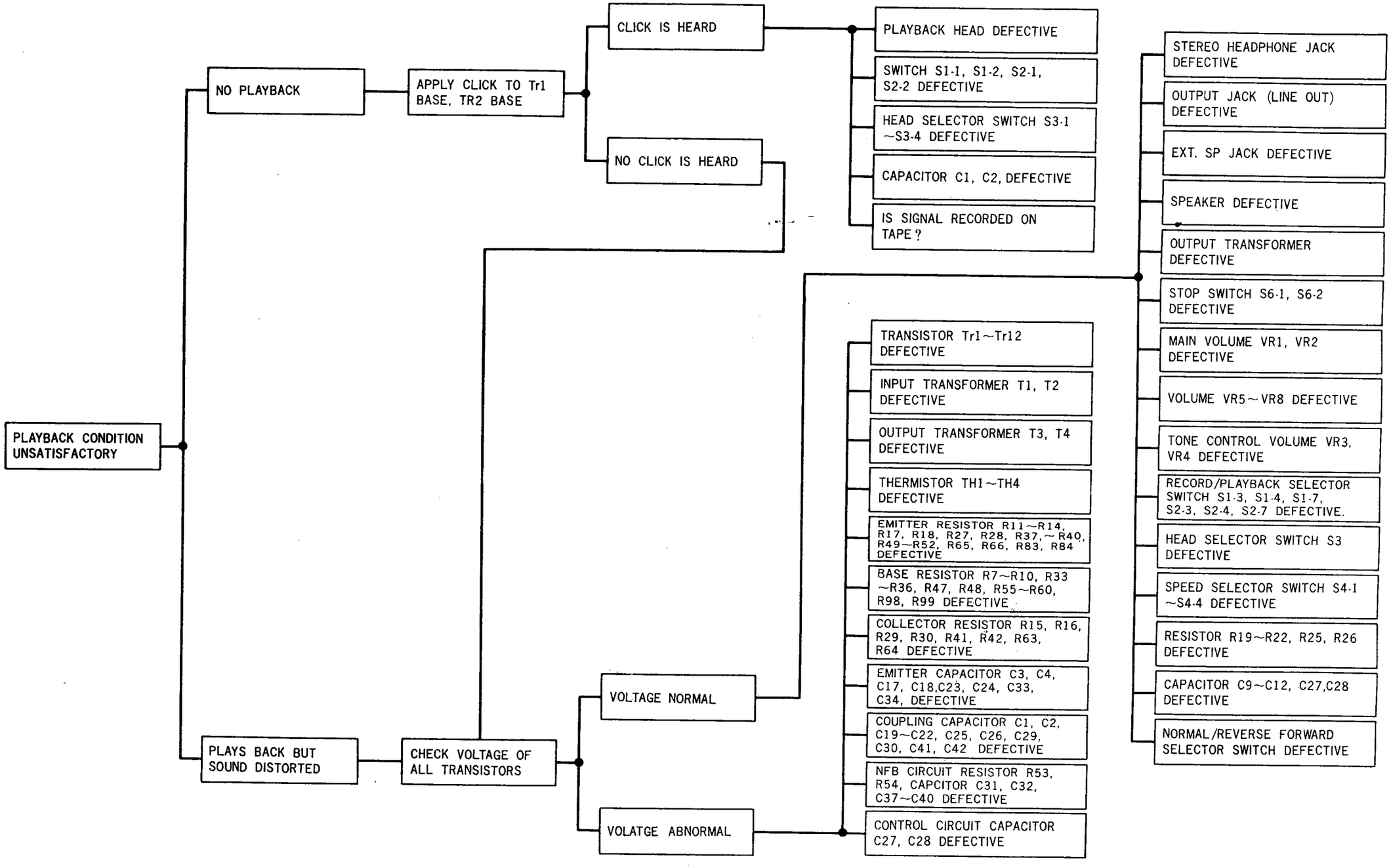
PACKINGS

451	Packing Case	QPN-1651
452	Inner Cushion-A	QPN-1652
453	Inner Cushion-B	QPN-1653
454	Dust Cover	QFD-0089
455	Inner Cushion-C	QPN-1655
456	Inner Cushion-D	QPN-1658

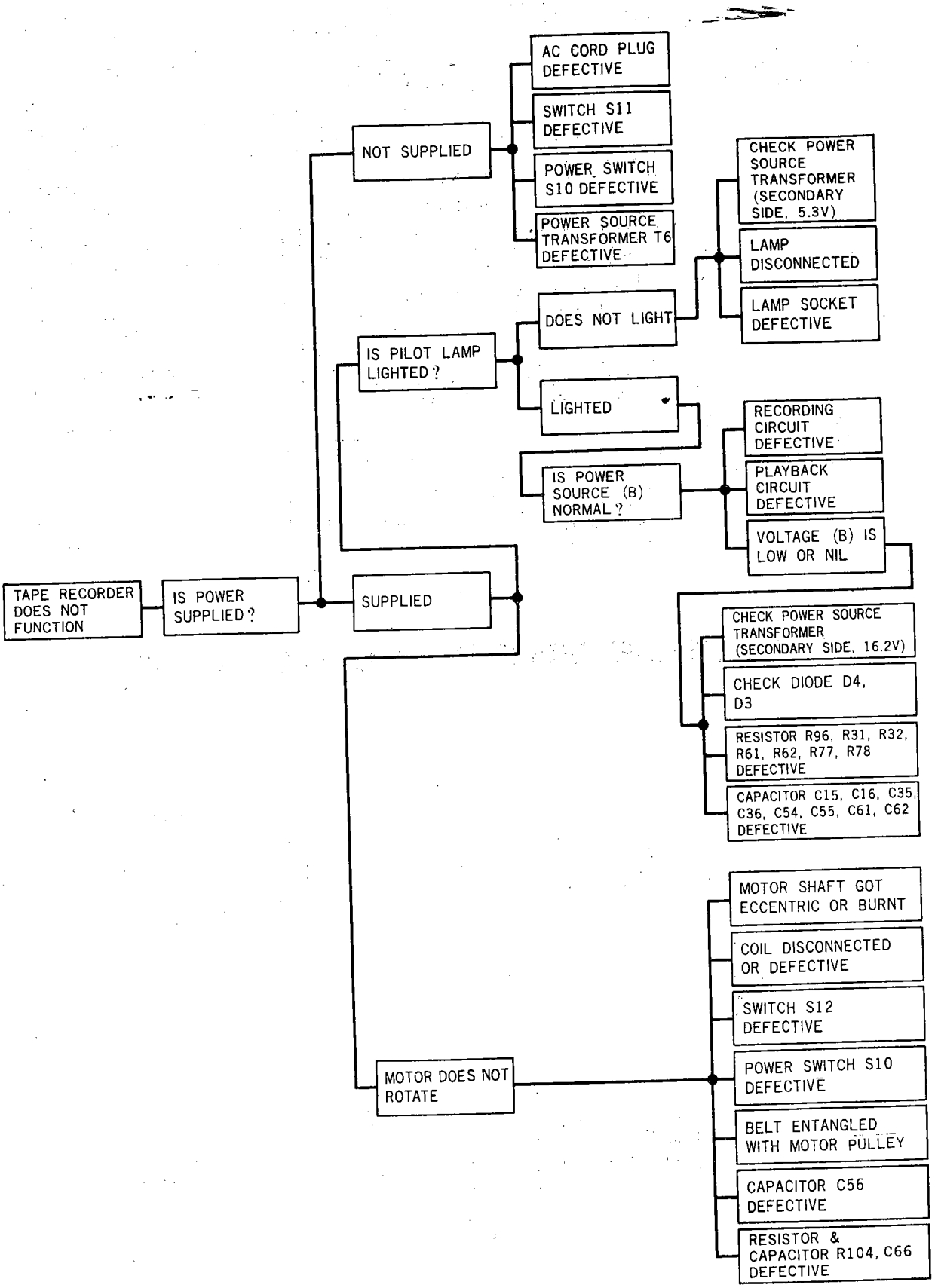
TROUBLE SHOOTING GUIDE 1



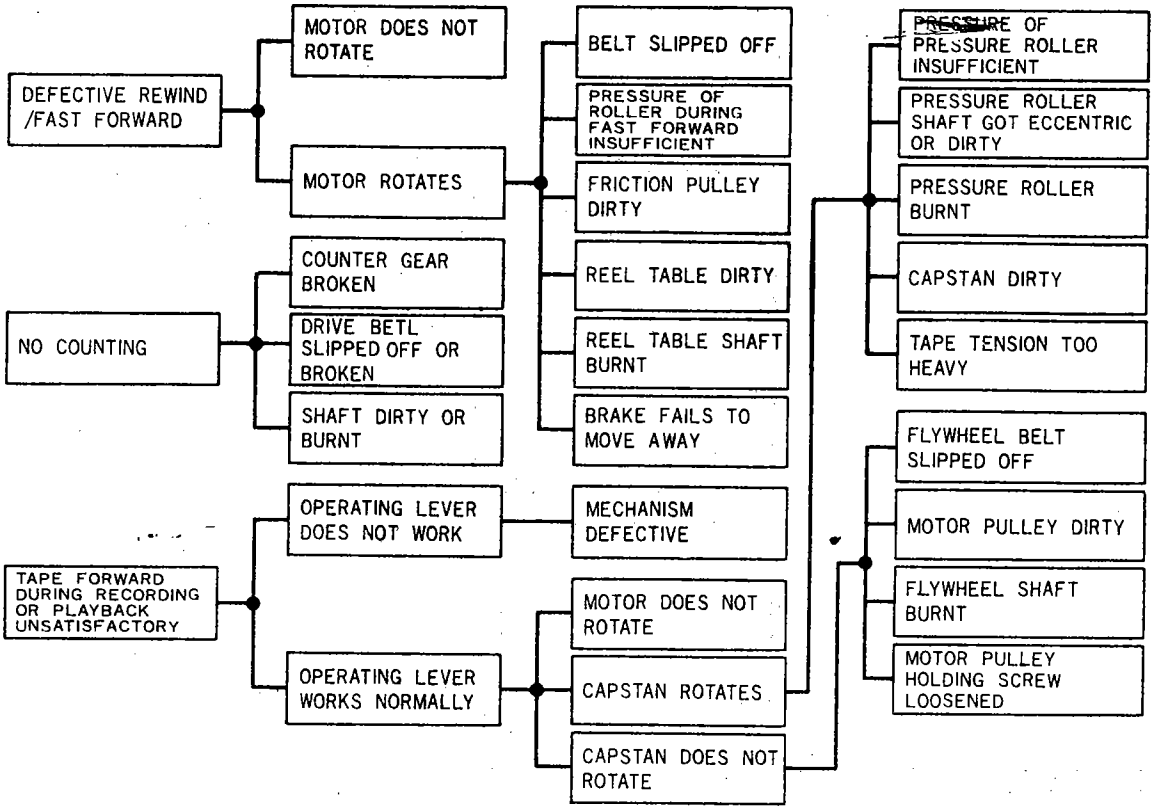
TROUBLE SHOOTING GUIDE 2



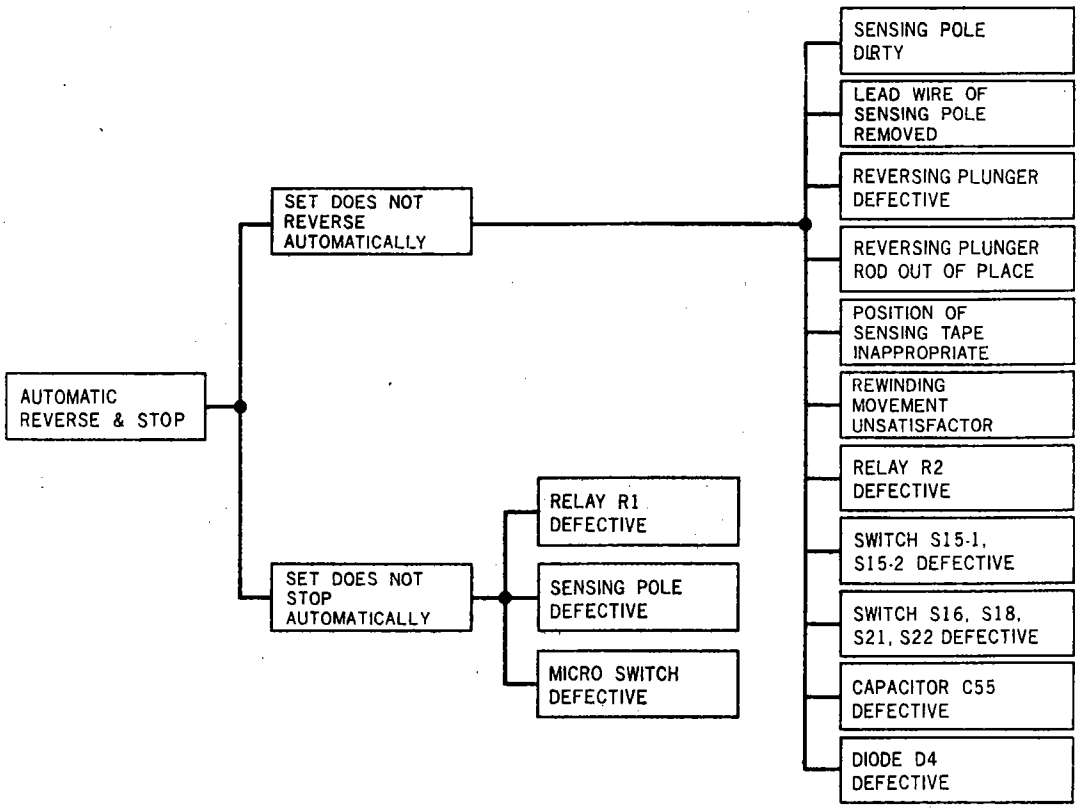
TROUBLE SHOOTING GUIDE 3



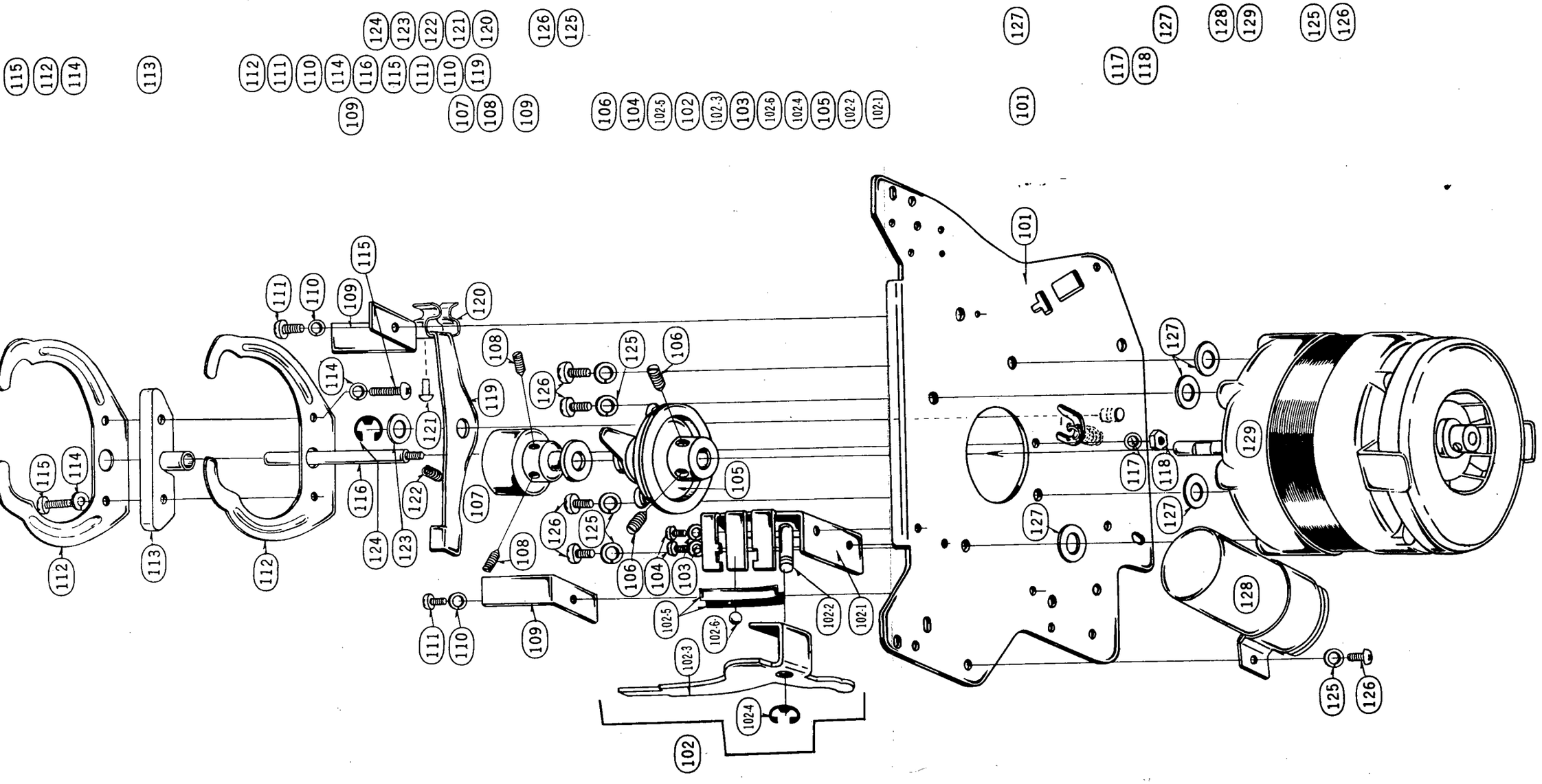
TROUBLE SHOOTING GUIDE 4

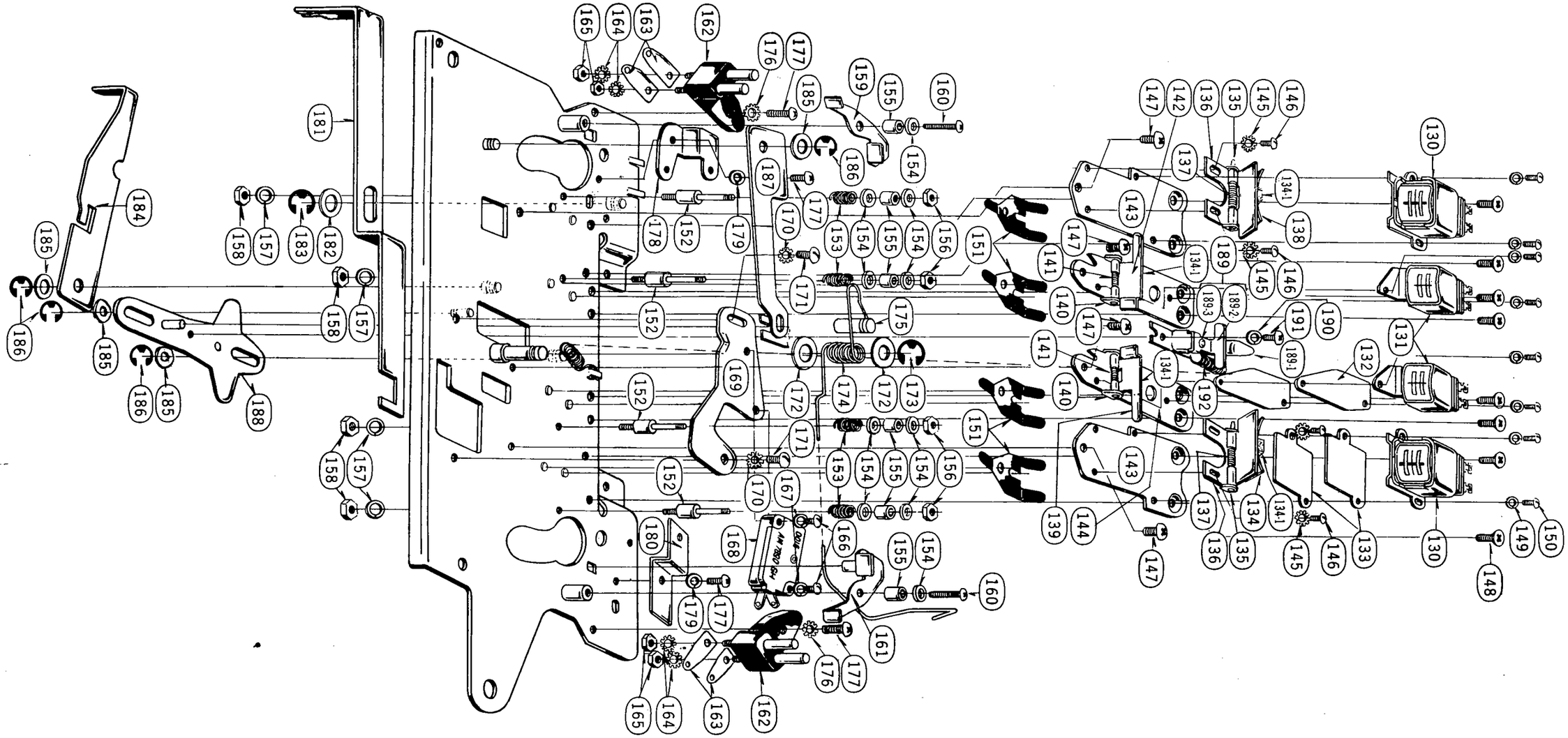


TROUBLE SHOOTING GUIDE 5



EXPLODED VIEWS

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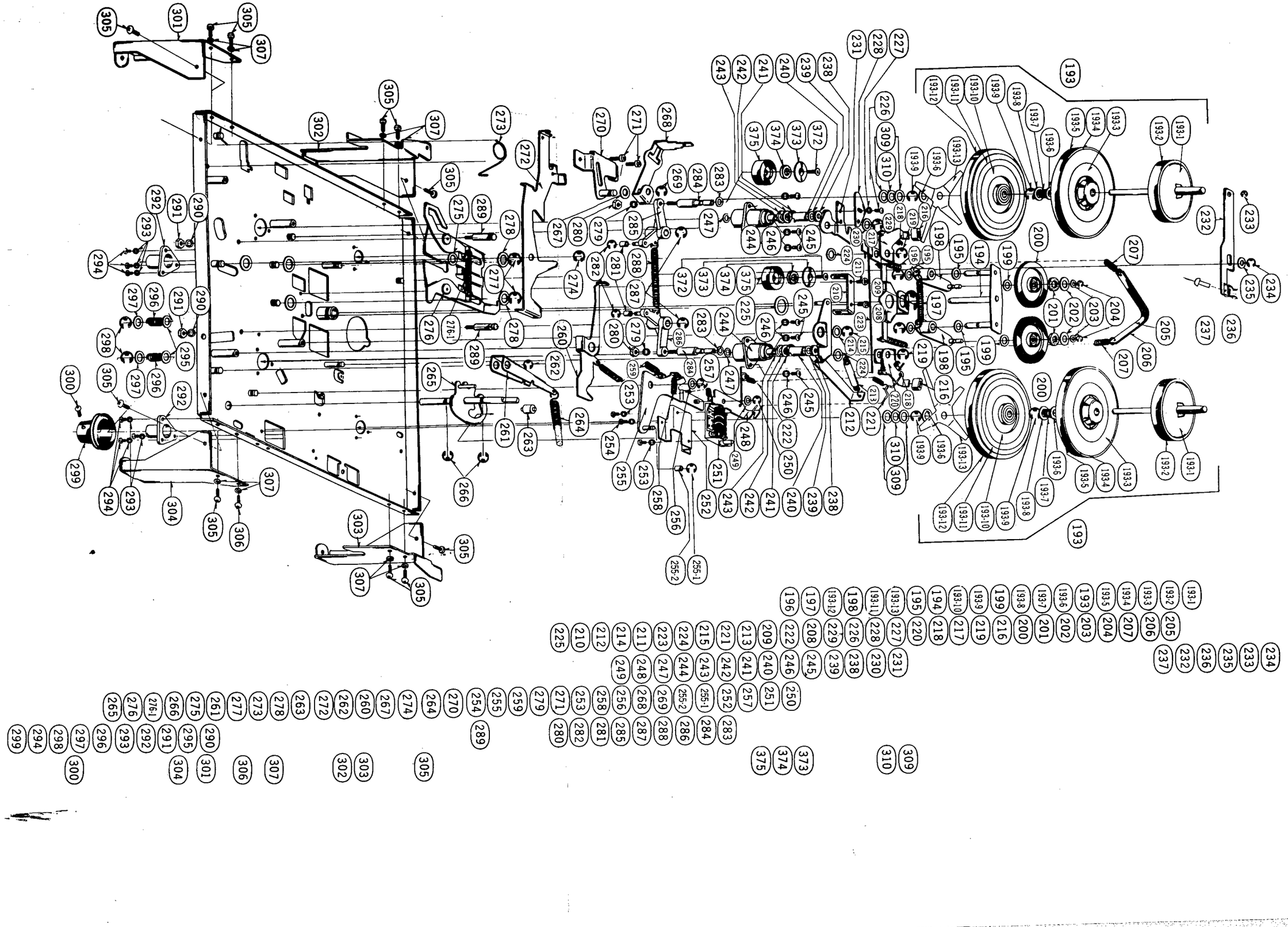
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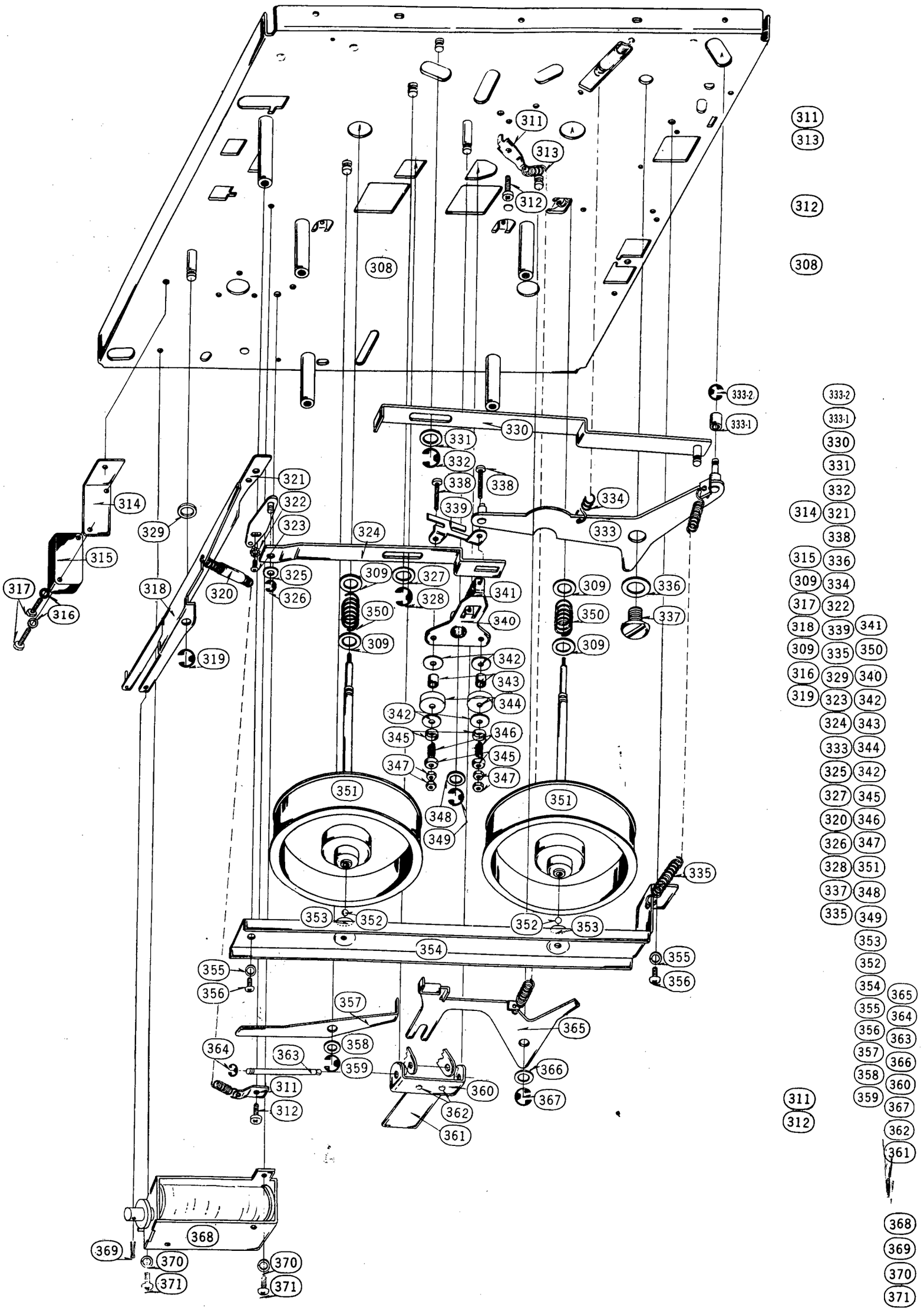
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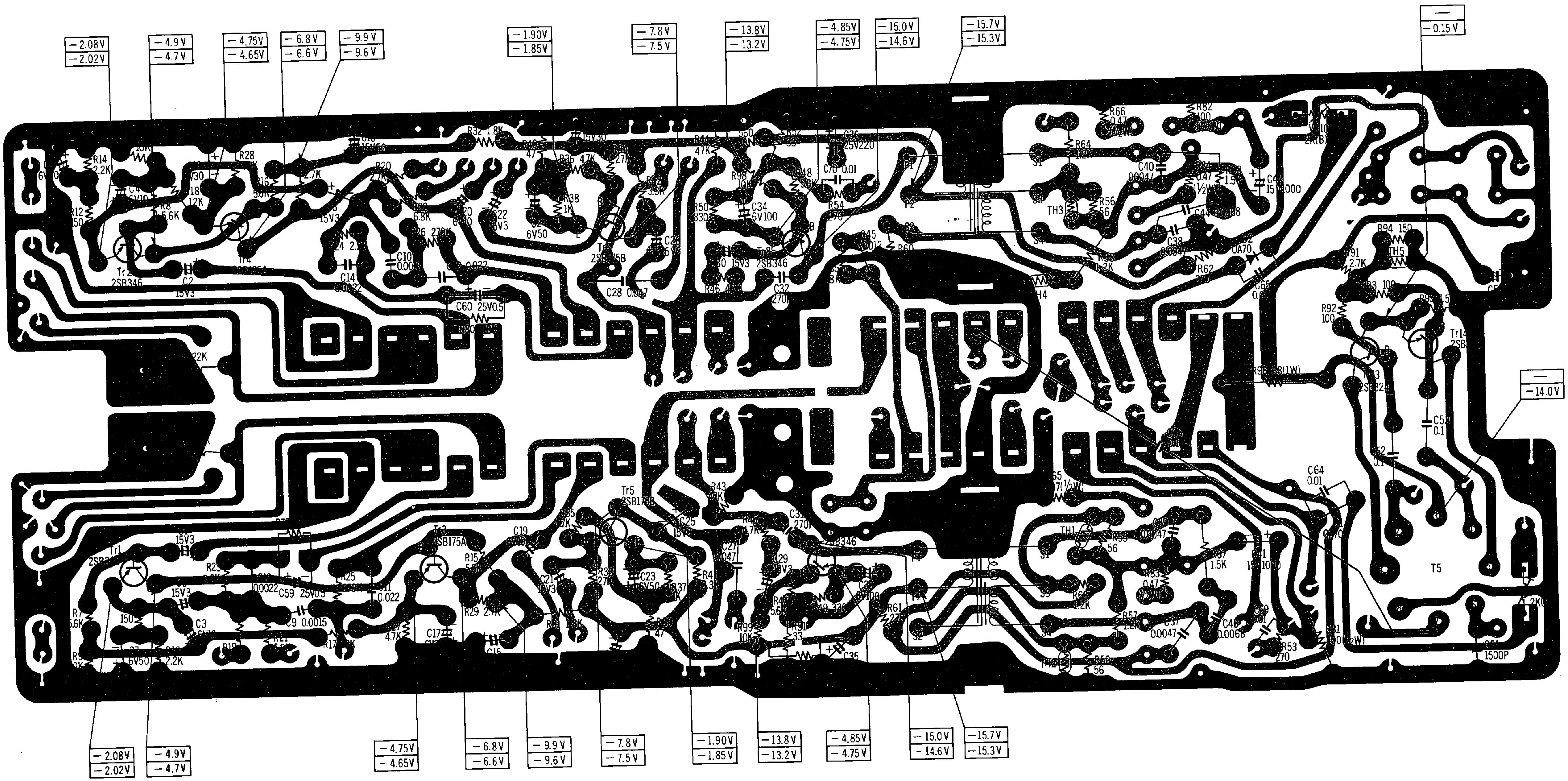
CIRCUIT BOARD

CONDUCTOR SIDE



NOTE:
The Circuit shown in Blue on the Conductor Side is Ground Circuit.
Values indicated in ▭ are DC to chassis ground with no signal applied.
The upper values should be measured during playback and the lower values during recording.

SCHEMATIC DIAGRAMS MODEL RS-790S

CAPACITORS

C1 C3 C47 C49 C5 C7 C13 C9 C59 C15 C17 C11 C19 C21 C23 C25 C27 C61 C29 C31 C35 C33 C69 C43 C37 C39 C41 C64
C2 C4 C6 C8 C48 C50 C14 C10 C16 C60 C18 C12 C20 C22 C24 C26 C28 C62 C30 C32 C36 C45 C34 C70 C44 C38 C40 C42 C65
C63 C51 C52 C53 C54 C55 C68 C57 C67 C66 C56

RESISTORS

R1 R3 R5
R2 R4 R6
R89 R7 R9 R11 R13 R87 R19 R21 R23 R15 R17 R79 R25 R27 R29 R31 R33 R35 R37 R39 R41 R43 R45 R99 R47 R77 R85 R49 R51 R53 R61 R55 R57 R59 R67 R63 R83 R65 R81 R73 R69 R71
R90 R8 R10 R12 R14 R88 R20 R22 R24 R16 R18 R90 R26 R28 R30 R32 R34 R36 R38 R40 R42 R44 R46 R98 R48 R78 R50 R52 R54 R62 R56 R58 R60 R68 R64 R84 R66 R82 R74 R70 R72
R91 R92 R93 R94 R95 R96 R100 R101 R102 R103 R105 R104

Tr1 2SB 346 Tr3 2SB175A Tr5 2SB 175A Tr7 2SB 346 Tr9, Tr10 2-2SB 473

Tr2 2SB 346 Tr4 2SB 175A Tr6 2SB 175A Tr8 2SB 346 Tr11, Tr12 2-2SB 473

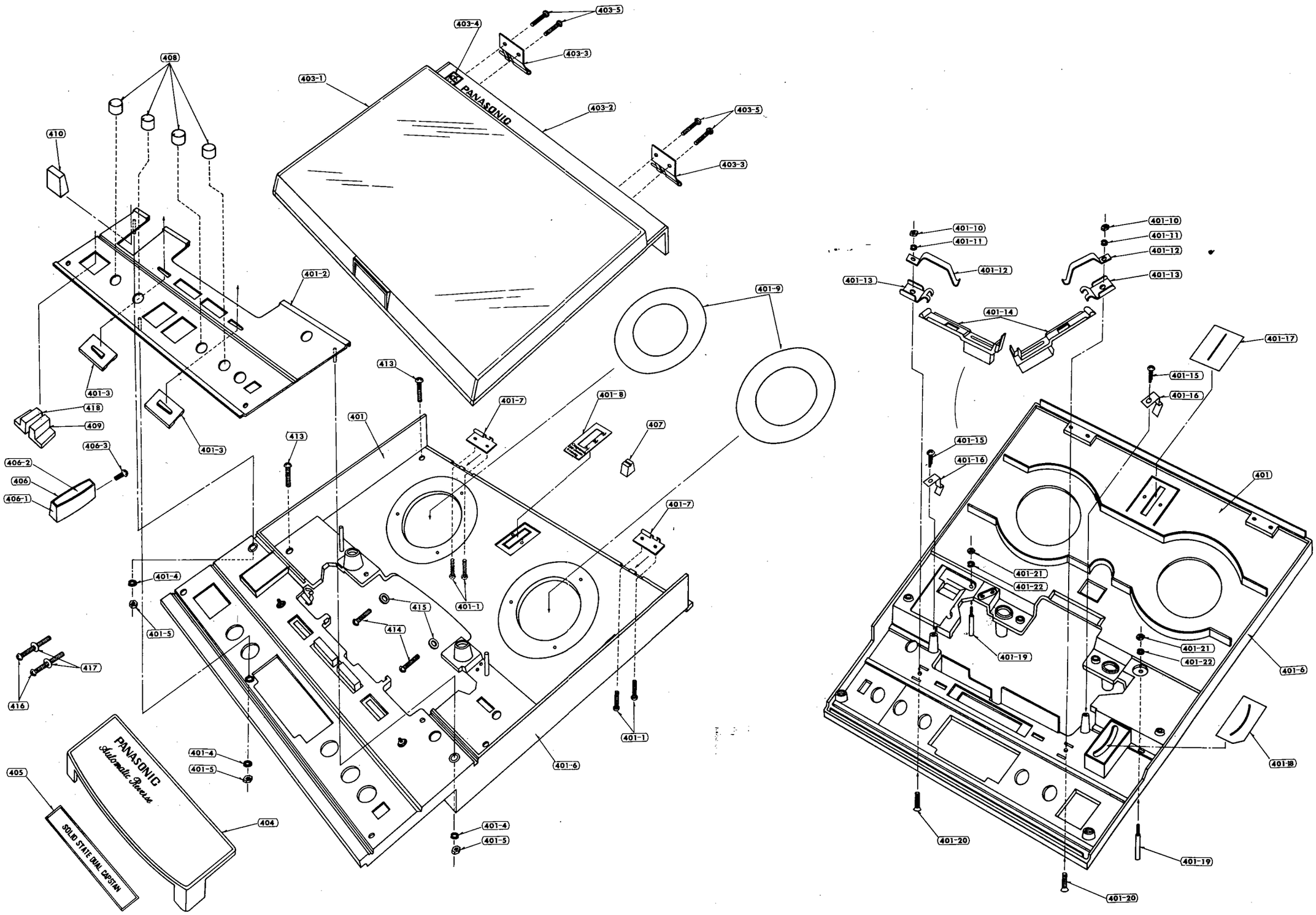
Tr13, Tr14 2-2SB 324

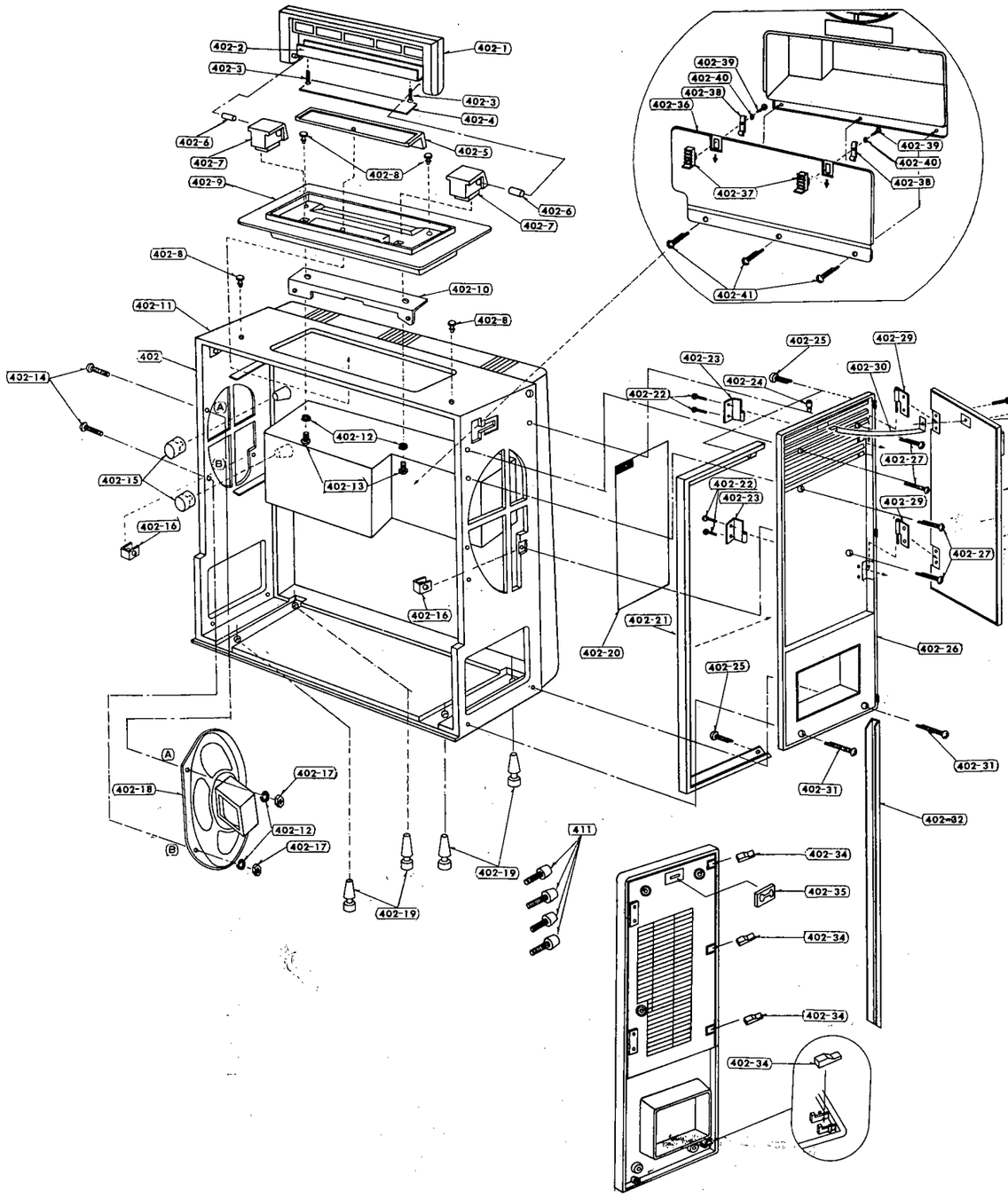
MIC
AUX
RECORD/ PLAYBACK HEAD
TRACK 1
TRACK 4
TRACK 3
TRACK 2
ERASE HEAD
SENSING POLE
PLUNGER
PILOT LAMP
MOTOR
EXT. SP
SPEAKER
LINE OUT
HEADPHONE
AC 117V 60%

NOTE:

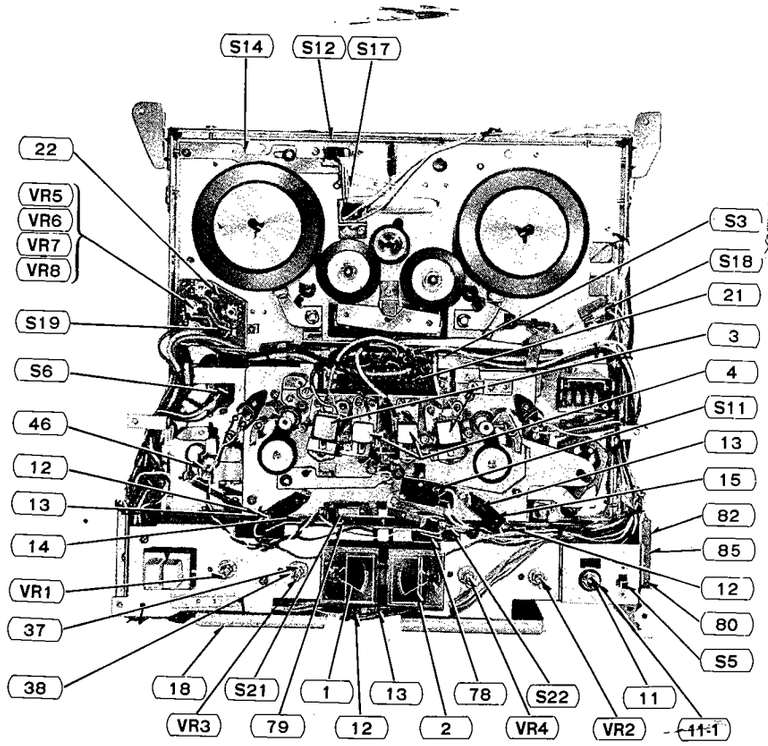
1. S1-1~S1-8, S2-1~S2-8 ... Record/Playback Selector Switch (Shown in Playback Position)
2. S3-1~S3-8 ... Forward/Reverse Head Selector Switch
3. S4-1~S4-4 ... Speed Selector Switch
4. S5 ... Stereo/Monaural Selector Switch
5. S6-1~S6-2 ... Stop Switch (ON when in Stop, FF and Rewind mode)
6. S8-1~S8-2 ... Sound Monitor Switch (Coupled with Tone Volume)
7. S9-1~S9-2 ... Speaker ON/OFF Switch
8. S10 ... AC Power ON/OFF Switch (Coupled with CH-2 VR)
9. S11 ... Automatic Shut-off Switch
10. S12-1~S12-2 ... Motor Selector Switch
11. S13-1~S13-2 ... Pilot Lamp and Reverse Switch (Coupled with Relay-2)
12. S14 ... Plunger Switch
13. S15-1~S15-2 ... Relay Switch (Coupled with Relay-1)
14. S16 ... Recording Automatic Stop Switch (OFF When in Recording mode)
15. S17-1~S17-2 ... FF and Rewind Prevent Switch
16. S18 ... Reverse Prevent Switch (OFF when Forward mode)
17. S19-1~S19-2 ... Gain Adjustment Switch
18. S21 ... Reverse Switch
19. S22 ... Forward Switch
20. Resistors are 1/4 watt unless specified otherwise. K=1,000Ω, M=1,000,000Ω.
21. Capacitors are microfarad (μF) unless specified otherwise.
22. Values indicated in ☐ are DC to chassis ground with no signal applied.
23. The upper values should be measured during playback and the lower values during recording.

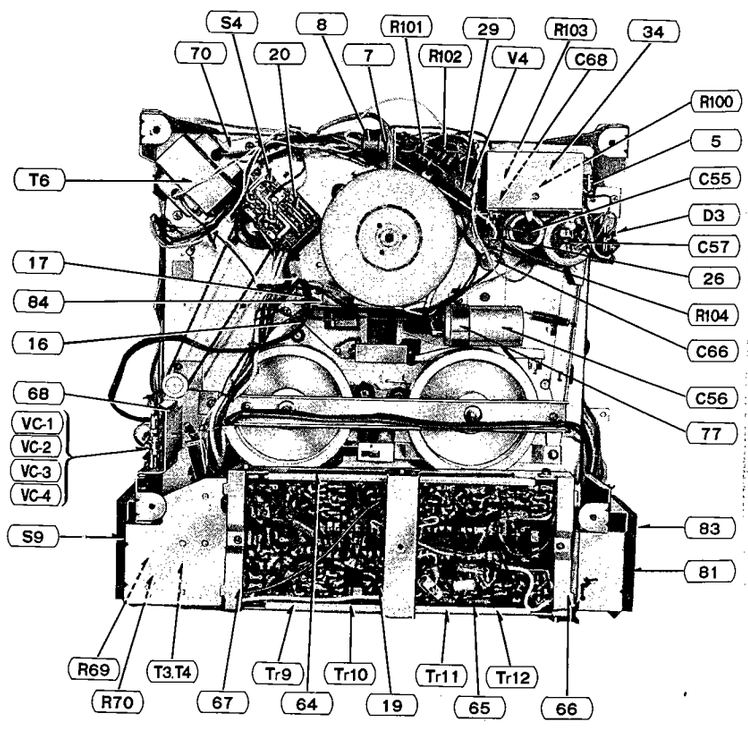
CABINET PARTS



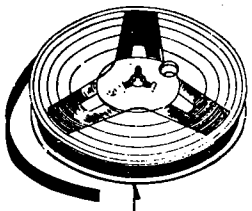


ELECTRICAL PARTS LOCATI





ACCESSORIES



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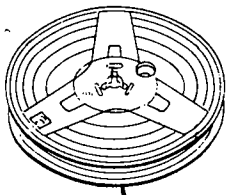

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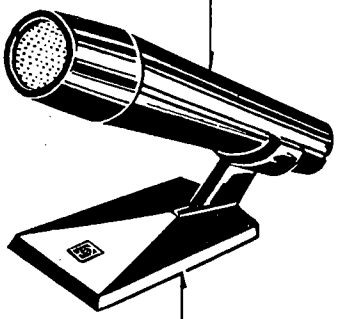

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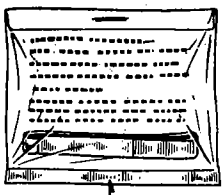

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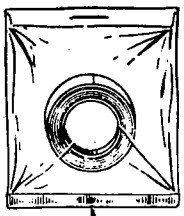

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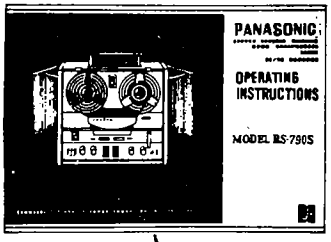

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COMPONENT PACKING